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8 ILLUMINA, INC., and ILLUMINA CAMBRIDGE LTD.

9 UNITED STATES DISTRICT COURT

10 NORTHERN DISTRICT OF CALIFORNIA

11
12 ILLUMINA, INC., and
13 ILLUMINA CAMBRIDGE LTD.,

14 Plaintiffs,

15 vs.

16 BGI GENOMICS CO., LTD.,
17 BGI AMERICAS CORP.,
18 MGI TECH CO., LTD.,
19 MGI AMERICAS INC., and
20 COMPLETE GENOMICS INC.,

Defendants.

Case No. _____

COMPLAINT FOR PATENT
INFRINGEMENT

JURY TRIAL DEMANDED

1 Plaintiffs Illumina, Inc. and Illumina Cambridge Ltd. (collectively “Illumina” or
2 “Plaintiffs”) for their Complaint against defendants BGI Genomics Co., Ltd. (“BGI Ltd.”), BGI
3 Americas Corp. (“BGI Americas”), MGI Tech Co., Ltd. (“MGI Ltd.”), MGI Americas Inc. (“MGI
4 Americas”), and Complete Genomics Inc. (“CGI”) (collectively “BGI” or “Defendants”), allege as
5 follows:

6 **INTRODUCTION**

7 1. This case is about the brazen infringement of Illumina’s patented DNA sequencing
8 technology by BGI, which is headquartered in Shenzhen, China. Illumina is internationally
9 recognized as the leading supplier of patented DNA sequencing equipment. Its sequencers have
10 been widely recognized for their high quality and performance. Indeed, Illumina’s sequencers have
11 been the engine for the biotech revolution, including major advances in healthcare for expectant
12 mothers and cancer patients, among others. BGI has imitated Illumina’s sequencers. It markets
13 copies of those sequencing systems without authorization from Illumina and in violation of its patent
14 rights. BGI started its commercialization effort in China and other places outside the reach of
15 United States patent law. It is now importing its infringing sequencers into the United States, using
16 them in its San Jose, California facility, and threatening to sell them throughout the United States.

17 2. Specifically, Illumina brings this action to halt BGI’s infringement of U.S. Patent
18 Nos. 7,566,537 (the “’537 Patent”) and 9,410,200 (the “’200 Patent”). Exs. 1 (’537 Patent) & 2
19 (’200 Patent). This Court has enforced the ’537 Patent, issuing an injunction against earlier
20 infringers in the face of a host of failed challenges. *Illumina, Inc. v. Qiagen, NV*, 207 F. Supp.3d
21 1081 (N.D. Cal. 2016) (Judge William Alsup). The Patent Trial and Appeal Board (“PTAB”) and
22 Federal Circuit have also upheld the validity of the ’537 Patent. *Intelligent Bio-Systems v. Illumina*
23 *Cambridge*, 821 F.3d 1359 (Fed. Cir. 2016).

24 3. In view of their infringement of the ’537 Patent, BGI, through CGI, attempted to
25 challenge the validity of Illumina’s patent, notwithstanding all the decisions upholding that patent.
26 The PTAB flatly rejected CGI’s invalidity challenges. *Complete Genomics, Inc. v. Illumina*
27 *Cambridge Ltd.*, IPR2017-02172, Paper 20 (PTAB Apr. 20, 2018) and IPR2017-02174, Paper 20
28

1 (PTAB Apr. 20, 2018). CGI listed BGI Ltd. and BGI Americas as real parties in interest, evidencing
2 their involvement with the infringing activities that are the subject of this suit. But CGI failed to
3 identify MGI Ltd. and MGI Americas as real parties in interest despite their involvement with the
4 infringing products.

5 4. Notwithstanding BGI's failed challenges to the '537 Patent, Defendants have
6 imported their infringing DNA sequencing systems into the United States. They have installed and
7 operated their infringing sequencers at their San Jose, California facility and are threatening to sell
8 their MGISEQ and BGISEQ products in direct competition with Illumina in the United States.

9 5. In addition to the familiarity this District has with the '537 Patent from enforcing
10 that patent against past infringers, Illumina brings this action in the Northern District of California
11 because Defendants are heavily present in this District and are infringing the '537 and '200 Patents
12 at their San Jose, California facility in this District.

13 6. As a result of BGI's infringement, and given the threat of its growing infringement,
14 Illumina faces a substantial risk of irreparable harm if such infringement is not halted.

15 **PARTIES**

16 7. Plaintiff Illumina, Inc. is a Delaware corporation with its principal place of business
17 at 5200 Illumina Way, San Diego, California 92122.

18 8. Plaintiff Illumina Cambridge Ltd. is a foreign corporation with its principal place of
19 business at Chesterford Research Park, Little Chesterford, Saffron Walden, Essex CB10 1XL,
20 United Kingdom.

21 9. Plaintiff Illumina Cambridge Ltd., a wholly-owned subsidiary of Illumina, Inc., is
22 the owner by assignment of all right, title and interest in and to the '537 and '200 Patents. Illumina
23 Inc. is the exclusive licensee of the '537 and '200 Patents with the right to sue to enforce their
24 exclusive rights.

25 10. Defendant BGI Ltd. is a Chinese corporation that has its headquarters at Building
26 No.7, BGI Park, No.21 Hongan 3rd Street, Yantian District, Shenzhen 518083, China. BGI Ltd.
27 controls BGI Americas, MGI Ltd., MGI Americas, and CGI as though they were not separate legal
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1 entities and represents publicly that it has facilities in San Francisco, San Jose, Los Angeles, and
2 San Diego. Among other things, it directs, funds, and manages the infringing activity set forth in
3 this Complaint.

4 11. Defendant BGI Americas has a principal place of business at 2904 Orchard Pkwy,
5 San Jose, California 95134. BGI Americas is, among other things, a sales and marketing arm of
6 BGI that is involved directly and indirectly with the infringing activity set forth in this Complaint.

7 12. Defendant MGI Ltd. is a Chinese corporation that has its headquarters at Building
8 No.11, Beishan Industrial Zone, Yantian District, Shenzhen 518083, China. MGI Ltd. is, among
9 other things, responsible for developing and distributing the infringing sequencing technology. It
10 represents publicly that it has facilities in San Jose, California. With BGI Ltd., it directs, funds and
11 manages the infringing activity set forth in this Complaint.

12 13. Defendant MGI Americas has a principal place of business at 2904 Orchard Pkwy,
13 San Jose, California 95134. MGI Americas is, among other things, a sales and marketing arm of
14 BGI that is involved directly and indirectly with the infringing activity set forth in this Complaint.

15 14. Defendant CGI has a principal place of business at 2904 Orchard Pkwy, San Jose,
16 California 95134. CGI is, among other things, a research and development entity supporting the
17 accused activity and is directly and indirectly with the infringing activity set forth in this Complaint.

18 15. Each and all of the Defendants had and have actual or constructive knowledge of the
19 events, transactions, and occurrences alleged herein, and either knew or should have known of the
20 conduct of their co-defendants and cooperated in, benefited from and/or ratified such conduct.

21 **JURISDICTION AND VENUE**

22 16. This action arises under the Patent Laws of the United States of America, 35 U.S.C.
23 § *I et seq.* This Court has federal question jurisdiction under 28 U.S.C. §§ 1331 and 1338(a) because
24 this is a civil action arising under the Patent Act.

25 17. Venue is proper in this District under 28 U.S.C. §§ 1391(b) and 1400(b). Among
26 other things, each of the Defendants maintains and/or is responsible for the use of regular and
27 established physical places of business in this District. The facts establishing this are included
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1 throughout this Complaint. As examples, BGI Americas, MGI Americas and CGI all have principal
2 places of business at the same address: 2904 Orchard Pkwy, San Jose, California 95134.

3 18. For the foreign Defendants, venue is proper under 28 U.S.C. § 1391(b) and (c), and
4 1400(b), because as foreign defendants they may be sued in any judicial district, including in this
5 District. This District is a convenient forum for resolution of the parties' disputes set forth herein
6 and Judge Alsup of this District has experience with the patents-in-suit. This foreign defendant
7 venue allegation applies to at least BGI Ltd. and MGI Ltd., whom both represent themselves as
8 foreign corporations.

9 19. This Court has personal jurisdiction over each of the Defendants via general and/or
10 specific jurisdiction. The Defendants have systematic and continuous contacts in California such
11 that they are essentially at home in California, as set forth throughout this Complaint. They have
12 minimum contacts in California sufficient to warrant the exercise of jurisdiction given their contacts
13 in relation to the infringing activity and otherwise, as set forth throughout this Complaint. Insofar
14 as the Defendants, including BGI Ltd. and MGI Ltd., deny that they are subject to personal
15 jurisdiction in any individual jurisdiction, the aggregation of their contacts throughout the United
16 States supports the exercise of personal jurisdiction over them.

17 20. BGI Ltd. manages the infringing activity in California by controlling the Defendants
18 and, directly and indirectly, funding, developing, marketing, promoting and operating the infringing
19 sequencing systems:

- 20 a. BGI Ltd.'s website represents that it has multiple locations in California, including
21 San Francisco, San Jose, Los Angeles, and San Diego. Ex. 5 (available at:
22 <http://en.genomics.cn/en-global.html> (last accessed: June 27, 2019) (*red box*
23 *showing U.S. locations in San Francisco, San Jose, Los Angeles, and San Diego*
24 *added*)). It touts that it has both "representative offices" and "laboratories" in
25 California.
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- b. BGI Ltd. promotes the infringing MGISEQ and BGISEQ by directing its marketing efforts to California, including its press releases and other communications.
- c. BGI Ltd.'s executives travel to California to manage and promote the infringing products. This includes BGI Ltd.'s presence at industry and trade shows, including SynBioBeta SF 2017 in San Francisco, California (Oct. 3-5, 2017); J.P. Morgan Healthcare Conference in San Francisco, California (Jan. 8-11, 2018); Plant & Animal Genome Conference ("PAG") XXVI in San Diego, California (Jan. 13-17, 2018); American Society of Human Genetics 2018 in San Diego, California (Oct. 16-20, 2018); and PAG XXVII in San Diego, California (Jan. 12-16, 2019). Exs. 6-10. For example, BGI Ltd.'s CEO, Ye Yin, traveled to the Northern District of California to promote the accused products at the J.P. Morgan Conference in January 2018. Ex. 7. Indeed, BGI Ltd.'s executives often travel to this District in connection with the infringing activity.
- d. In March 2019, BGI Ltd. entered into a \$50 million partnership with Natera, Inc. ("Natera"), a company headquartered in San Carlos, CA, which permits Natera to use the infringing DNA sequencing products for commercial purposes. Ex. 11.

1 21. Further, the following is an exemplary list of various employees associated with
2 “BGI Group”—an amorphous label used by BGI—that are involved with development and/or
3 marketing of the infringing technology:

- 4 a. Group VP and CEO of BGI Americas Region at BGI Group, Yongwei Zhang, resides
5 in Sunnyvale, CA. Ex. 12.
- 6 b. Director of Product Management, Ke Zhan, identifies BGI Ltd. as being located in
7 San Jose, California and that he works for this entity. Ex. 13.
- 8 c. BGI Group–Business Development Associate, Yuhan Zhang, resides in the San
9 Francisco Bay Area and worked in San Jose, California. Ex. 14. In this role, Ms.
10 Zhang “[i]dentified new business opportunities, reached out to potential partners and
11 managed existed relationship through email campaign, framed contracts and MoU.”
12 Further, she describes her responsibilities as having, “[o]rganized and supported
13 marketing events in North and South America to promote the brand and publicity.”
14 *Id.*

15 22. At a minimum this Court has jurisdiction over BGI Ltd. because Plaintiffs’ claims
16 arise under federal law, BGI Ltd. is not subject to general jurisdiction in any state’s courts of general
17 jurisdiction, and this exercise of jurisdiction comports with due process. With regard to due process,
18 BGI Ltd. has continuous and systematic contacts with California that gives rise to infringement,
19 including targeting the California market for its products as a whole, through at least advertising,
20 threatening to sell, providing service and support, and/or disseminating literature on the MGISEQ
21 and BGISEQ systems, MGISEQ and BGISEQ reagent kits and/or MGISP-960 sample prep system
22 on its website. Also, its contacts with this forum in connection with the infringing activity are
23 sufficient to support the exercise of specific jurisdiction.

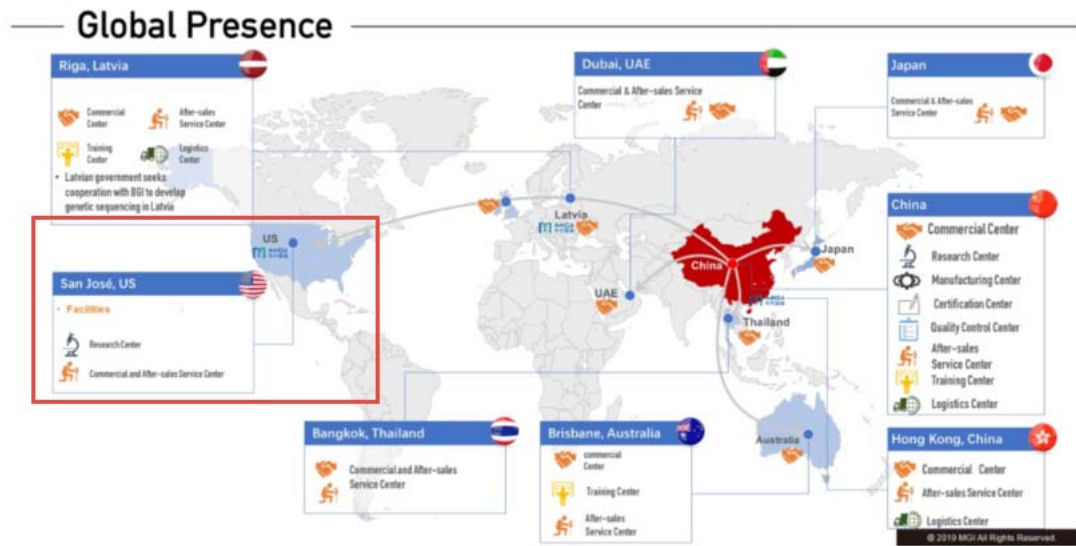
24 23. Defendant BGI Americas is present in California and commits acts of infringement
25 in California:
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- a. BGI Americas is present in this District with its “West Coast Innovation Center” in San Jose, California where it conducts research. Ex. 15. It announced the expansion of that facility at the ASMS Conference in San Jose, California in May 2019. Ex. 16. This is evidence that BGI Americas is physically located in this District.
- b. BGI Americas is involved in the research and development of BGI’s NGS technologies at its San Jose, California facility. *Id.*
- c. Several senior-level BGI Americas employees involved with product development, sales and marketing of the infringing technology state they live in this District. For example, BGI Americas’ Group VP, CEO of the Americas Region, Yongwei Zhang, BGI Americas’ Director of Marketing, Johan Christiaan, and BGI America’s Regional Sales Manager, Rosanna Schroeder, reside in the San Francisco Bay Area. Exs. 12, 17-18. This is evidence that BGI Americas is physically located in this District and involved with the infringing technology in California.

24. At a minimum this Court has jurisdiction over BGI Americas because Plaintiffs’ claims arise under federal law and this exercise of jurisdiction comports with due process. With regard to due process, BGI Americas has continuous and systematic contacts with California, including targeting the California market for its products, through at least advertising, threatening to sell, providing service and support, and/or disseminating literature on the MGISEQ and BGISEQ systems, MGISEQ and BGISEQ reagent kits and/or MGISP-960 sample prep system on its website. Also, its contacts with this forum in connection with the infringing activity are sufficient to support the exercise of specific jurisdiction.

25. Defendant MGI Ltd. is present in California and commits acts of infringement in California:

- a. A map on MGI Tech’s website shows that it has a San Jose, California facility that is a “Research Center” and a “Commercial and After-Sales Service Center.” Ex. 19 (available at: <https://en.mgitech.cn/page/gsjj.html> (last accessed: June 27, 2019) (*red box showing U.S. location in San Jose, California added*))



- b. MGI Ltd. and MGI Americas claim to be the “leading manufacturer and developer of BGI’s proprietary NGS instrumentation.” Ex. 20. NGS stands for “next generation sequencing.” MGI states on its website: “As the leading manufacturer and developer of BGI’s proprietary NGS instrumentation, the global MGI organization provides comprehensive products and services for fully-automated, real-time, whole picture and lifelong genetic analysis in life science research.” *Id.* This is evidence that MGI Ltd. and MGI Americas are responsible for infringement of the ’537 Patent.
- c. MGI Ltd. through its President, Duncan Yu, appeared at the J.P. Morgan Healthcare Conference in San Francisco, California on January 9, 2019 to promote its infringing sequencers by announcing its price and promoting its intent to sell them in the United States. Ex. 21. This is evidence that MGI Ltd. is responsible for the infringement of the ’537 Patent in this District.
- d. On March 4, 2019 in San Jose, California, MGI Ltd. announced claimed improvements to its sequencing technology and its plans to enter the United States market. Exs. 22-23.

1 e. MGI Ltd. is involved in the research, development and marketing of the infringing
2 products. Exs. 20-23.

3 f. Senior-level MGI Ltd. employees involved with product development and marketing
4 of the infringing products are located in this District. For example, MGI Ltd.'s Chief
5 Science Officer, Rade Drmanac, Director of Business Development, Jia Sophie Liu,
6 and VP of Engineering, Paul Lundquist, state they reside in the San Francisco Bay
7 Area. Exs. 24-27.

8 26. At a minimum this Court has jurisdiction over MGI Ltd. because Plaintiffs' claims
9 arise under federal law, MGI Ltd. is not subject to general jurisdiction in any state's courts of general
10 jurisdiction, and this exercise of jurisdiction comports with due process. With regard to due process,
11 MGI Ltd. has continuous and systematic contacts with California, including targeting the California
12 market for its products as a whole, through at least advertising, threatening to sell, providing service
13 and support, and/or disseminating literature on the MGISEQ and BGISEQ systems, MGISEQ and
14 BGISEQ reagent kits and/or MGISP-960 sample prep system on its website. Also, its contacts with
15 this forum in connection with the infringing activity are sufficient to support the exercise of specific
16 jurisdiction.

17 27. Defendant MGI Americas is present in California and commits acts of infringement
18 in California:

19 a. MGI Ltd. and MGI Americas claim to be the "leading manufacturer and developer
20 of BGI's proprietary NGS instrumentation." Ex. 20. NGS stands for "next
21 generation sequencing." MGI states on its website: "As the leading manufacturer
22 and developer of BGI's proprietary NGS instrumentation, the global MGI
23 organization provides comprehensive products and services for fully-automated,
24 real-time, whole picture and lifelong genetic analysis in life science research." *Id.*
25 This is evidence that MGI Americas and MGI Ltd. are responsible for the
26 infringement of the '537 Patent.

b. MGI Americas is involved in the research, development and marketing of the infringing products. *Id.*

c. MGI Americas' field service engineer, Abigail Frank, states she "services NGS instruments and lab automated workstations at Complete Genomics in San Jose, as well as external customers throughout North and South America." Ex. 28.

28. At a minimum this Court has jurisdiction over MGI Americas because Plaintiffs' claims arise under federal law and this exercise of jurisdiction comports with due process. With regard to due process, MGI Americas has continuous and systematic contacts with California, including targeting the United States as a market for its products, through at least advertising, threatening to sell, providing service and support, and/or disseminating literature on the MGISEQ and BGISEQ systems, MGISEQ and BGISEQ reagent kits and/or MGISP-960 sample prep system on its website. Also, its contacts with this forum in connection with the infringing activity are sufficient to support the exercise of specific jurisdiction.

29. Defendant CGI is present in California and commits acts of infringement in California:

a. CGI is involved in the development, marketing and operation of the infringing products in its San Jose, California facility. Ex. 29.

b. Several senior-level CGI employees involved with product development and marketing state they live in this District. For example, CGI's Vice President of Marketing, Suzanne Yakota, CGI's Director, Shifeng Li, and CGI's Chief Scientific Officer, Rade Drmananc, state they reside in the San Francisco Bay Area. Exs. 24, 30-31.

c. CGI Fluidics Systems Engineer, Wei Wang, states she "[e]nsures the proper installation qualification and operation qualification (IQ/OQ), and instrument performance verification (IPV) of NGS systems, such as the BGISEQ-500 in an ISO 17025 accredited and customer-oriented environment." Ex. 32. Ms. Wang elaborates she is "[r]esponsible for creating and compiling comprehensive

1 procedural documentation for NGS systems, for processes including IQ/OQ, IPV,
2 troubleshooting, repairs, replacement parts, calibrations, and maintenance.” *Id.*

- 3 d. CGI further recently began seeking to hire at least a “Sr. Regional Sales
4 Manager/Director” and “Strategic Accounts Specialist/Manager/Director” based in
5 San Jose, California. Exs. 33-34. According to the job postings, the positions, *inter*
6 *alia*, would: (i) “provide a one touch-point for the global customers with the full MGI
7 product portfolio”; (ii) “[n]avigate orders through the customer purchasing process”;
8 and (iii) be “responsible for leading regional sale activities for MGI’s NGS
9 Sequencing instruments, reagents, software or solutions in the designated region.”
10 *Id.*

11 30. At a minimum this Court has jurisdiction over CGI because Plaintiffs’ claims arise
12 under federal law and this exercise of jurisdiction comports with due process. With regard to due
13 process, CGI has continuous and systematic contacts with California, including targeting the
14 California market for its products, through at least advertising, threatening to sell, providing service
15 and support, and/or disseminating literature on the MGISEQ and BGISEQ systems, MGISEQ and
16 BGISEQ reagent kits and/or MGISP-960 sample prep system on its website.

17 31. Alternatively, this Court has general and/or specific jurisdiction over all Defendants
18 because they are alter-egos of one another and/or agents of each other because they have common
19 directors, officers, and executives and do not respect corporate formalities. It would be unjust to
20 treat them each as separate legal entities as they do not treat each other as such. This establishes
21 personal jurisdiction and mutual liability because the activity of each Defendant is imputed to the
22 other Defendants.

23 **INTRA-DISTRICT ASSIGNMENT**

24 32. Pursuant to Civil Local Rules 3-5(b) and 3-2(c), because this action is an intellectual
25 property action, it is properly assigned to any of the divisions in this District. However, because
26 Judge William Alsup has direct experience with the ‘537 and ‘200 Patent, and this technology, this
27 case is properly assigned to his Court in the San Francisco Division.
28

BACKGROUND**The MGISEQ and BGISEQ Systems Infringe the '537 and '200 Patents**

33. On July 28, 2009, the United States Patent and Trademark Office duly and legally issued the '537 Patent, entitled "Labelled Nucleotides." The named inventors of the '537 Patent are Shankar Balasubramanian, Colin Barnes, Xioahai Liu, John Milton, Harold Swerdlow, and Xioalin Wu. By operation of law and as a result of written assignment agreements, Illumina, specifically plaintiff Illumina Cambridge Ltd., obtained the entire right, title, and interest to and in the '537 Patent. The '537 Patent is attached hereto. Ex. 1.

34. On August 9, 2016, the United States Patent and Trademark Office duly and legally issues the '200 Patent, entitled "Labelled Nucleotides." The named inventors of the '200 Patent are Shankar Balasubramanian, Colin Barnes, Xiaohai Liu, and John Milton. By operation of law and as a result of written assignment agreements, Illumina, specifically plaintiff Illumina Cambridge Ltd., obtained the entire right, title, and interest to and in the '200 Patent. The '200 Patent is attached hereto. Ex. 2.

35. In or around October 2015, BGI Ltd. launched the BGISEQ-500, a desktop sequencing instrument. In or around November 2016, BGI Ltd. launched the BGISEQ-50, a smaller version of the BGISEQ-500. In or around October 2017, BGI launched two genetic sequencing instruments, the MGISEQ-200 and the MGISEQ-2000, as upgrades to the BGISEQ-50 and BGISEQ-500. In or around October 2018, MGI announced a new model called the MGISEQ-T7. The BGISEQ and MGISEQ devices (referred to throughout this complaint as "BGISEQ" and "MGISEQ") are identified in MGI Ltd.'s product brochures, on the "Sequencer" section of MGI Ltd.'s website, and the product user manuals, which are all publically accessible on MGI Ltd.'s website. A copy of the MGISEQ-2000 product brochure, relevant pages of the website itself, and the user manual are attached. Exs. 35 (brochure), 36 (website), 37 (user manual).

1 36. MGI, Ltd.'s Chief Scientific Officer, Rade Drmanac, stated that "the current
2 sequencing chemistry relies on stepwise sequencing-by-synthesis (SBS) where 3'-blocked
3 nucleotides are labeled with cleavable fluorescent dyes, which leave behind a molecular 'scar' after
4 they are removed. This chemistry is similar to that used by Illumina and others." Ex. 22 at 3.

5 37. To demonstrate how Defendants infringe at least claim 1 of the '537 Patent with their
6 MGISEQ and BGISEQ sequencers, attached is a preliminary and exemplary claim chart. Ex. 3.
7 This chart is not intended to limit Plaintiffs' right to modify this chart or any other claim chart or
8 allege that other activities of Defendants infringe the identified claims or any other claims of the
9 '537 Patent or any other patents. This chart is hereby incorporated by reference in its entirety. Each
10 claim element that is mapped to MGISEQ and BGISEQ products and related reagents shall be
11 considered an allegation within the meaning of the Federal Rules of Civil Procedure and therefore
12 a response to each allegation is required.

13 38. Defendants have and continue to directly infringe pursuant to 35 U.S.C. § 271(a),
14 literally or under the doctrine of equivalents, at least claim 1 of the '537 Patent by using the
15 MGISEQ and BGISEQ sequencers and related reagents within the United States. Defendants have
16 used the MGISEQ and BGISEQ sequencers in the United States as part of their preparations to enter
17 North American markets, specifically in connection with research, development, testing, and/or
18 promotional activities related to the products. Defendants also use the MGISEQ and BGISEQ
19 products and related reagents in the United States whenever they install these types of sequencers
20 at a United States facility. This includes the BGI facilities in San Jose, California.

21 39. Defendants are inducing infringement as prohibited by 35 U.S.C. § 271(b). The
22 operation of Defendants' MGISEQ and BGISEQ sequencers directly infringe at least claim 1 of the
23 '537 Patent. Defendants actively induce infringement by promoting the infringing products,
24 encouraging their infringing use and threatening to sell them throughout the United States. For
25 example, Defendants have recently began actively seeking to hire sales personnel, including at least
26 a Senior Regional Sales Manager/Director and Strategic Accounts Specialist/Manger/Director, in
27 the United States to promote and sell the infringing products domestically. As a further example,
28

1 Defendants distribute MGISEQ and BGISEQ promotional and marketing materials and the
2 MGISEQ and BGISEQ User Manuals in websites directed to the United States market.

3 40. Defendants are contributing to infringement pursuant to 35 U.S.C. § 271(c). Users
4 of the MGISEQ and BGISEQ products directly infringe at least claim 1 of the '537 Patent when
5 they use these systems. Defendants contribute to infringement by supplying in the United States
6 products designed for use in practicing claim 1 of the '537 Patent, including for example the
7 MGISEQ and BGISEQ systems themselves, MGISEQ and BGISEQ reagent kits, and the MGISP-
8 960 sample prep system and by threatening to sell those systems throughout the United States.

9 41. To demonstrate how Defendants infringe at least claim 1 of the '200 Patent with their
10 MGISEQ and BGISEQ sequencers, attached is a preliminary and exemplary claim chart. Ex. 4.
11 This chart is not intended to limit Plaintiffs' right to modify this chart or any other claim chart or
12 allege that other activities of Defendants infringe the identified claims or any other claims of the
13 '200 Patent or any other patents. This chart is hereby incorporated by reference in its entirety. Each
14 claim element that is mapped to MGISEQ and BGISEQ products and related reagents shall be
15 considered an allegation within the meaning of the Federal Rules of Civil Procedure and therefore
16 a response to each allegation is required.

17 42. Defendants have and continue to directly infringe pursuant to 35 U.S.C. § 271(a),
18 literally or under the doctrine of equivalents, at least claim 1 of the '200 Patent by using the
19 MGISEQ and BGISEQ sequencers and related reagents within the United States. Defendants have
20 used the MGISEQ and BGISEQ sequencers in the United States as part of their preparations to enter
21 North American markets, specifically in connection with research, development, testing, and/or
22 promotional activities related to the products. Defendants also use the MGISEQ and BGISEQ
23 products and related reagents in the United States whenever they install these types of sequencers
24 at a United States facility. This includes the BGI facilities in San Jose, California.

25 43. Defendants are inducing infringement as prohibited by 35 U.S.C. § 271(b). The
26 operation of Defendants' MGISEQ and BGISEQ sequencers directly infringe at least claim 1 of the
27 '200 Patent. Defendants actively induce infringement by promoting the infringing products,
28

1 encouraging their infringing use and threatening to sell them throughout the United States. For
2 example, Defendants have recently began actively seeking to hire sales personnel, including at least
3 a Senior Regional Sales Manager/Director and Strategic Accounts Specialist/Manger/Director, in
4 the United States to promote and sell the infringing products domestically. As a further example,
5 Defendants distribute MGISEQ and BGISEQ promotional and marketing materials and the
6 MGISEQ and BGISEQ User Manuals in websites directed to the United States market.

7 44. Defendants are contributing to infringement pursuant to 35 U.S.C. § 271(c). Users
8 of the MGISEQ and BGISEQ products directly infringe at least claim 1 of the '200 Patent when
9 they use these systems. Defendants contribute to infringement by supplying in the United States
10 products designed for use in practicing claim 1 of the '200 Patent, including for example the
11 MGISEQ and BGISEQ systems themselves, MGISEQ and BGISEQ reagent kits, and the MGISP-
12 960 sample prep system and by threatening to sell those systems throughout the United States.

13 COUNT I

14 **Infringement of U.S. Patent No. 7,566,537 (“’537 Patent”)**

15 45. Illumina re-alleges and incorporates by this reference the allegations contained
16 throughout this Complaint into each allegation of infringement and request for remedies.

17 46. Defendants and users of Defendants’ infringing products have and continue to
18 directly infringe, literally or by equivalence, claim 1 of the ’537 Patent by practicing one or more
19 claims of the ’537 Patent by using the MGISEQ and BGISEQ products and other infringing
20 products. The following allegations identify the acts of direct, induced and contributory
21 infringement by each named defendant as supplemented by the allegations throughout this
22 Complaint.

1 **BGI Ltd.'s Infringement of the '537 Patent**

2 47. Illumina's patented sequencing technology is well-known and has been enforced
3 very publicly against infringers. Together with the other Defendants, BGI Ltd. has copied that
4 technology. BGI Ltd. has had knowledge of the '537 Patent since at least before October 5, 2017,
5 the date CGI filed two petitions for *inter partes* review in attempt to invalidate the '537 Patent and
6 failed.

7 48. BGI Ltd. has failed to resist the temptation of importing its infringing technology
8 into the large United States market and has done so in the face of the '537 Patent. BGI Ltd. knows
9 that its activities in connection with the MGISEQ and BGISEQ products will infringe the '537
10 Patent.

11 **Direct Infringement By BGI Ltd.**

12 49. BGI Ltd. has directly infringed and continues to directly infringe the '537 Patent
13 pursuant to 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, because it is
14 responsible for the use of MGISEQ and BGISEQ products in the United States. Specifically, BGI
15 Ltd. or those for whom it is responsible have used at least the MGISEQ-2000 and BGISEQ-500 in
16 its San Jose, California facility. BGI Ltd. controls and is responsible for, with the other Defendants,
17 directing the installation of the MGISEQ and BGISEQ products at the San Jose, California facility.

18 **Induced Infringement by BGI Ltd.**

19 50. BGI Ltd. is liable for the induced infringement of the '537 Patent pursuant to 35
20 U.S.C. § 271(b). Specifically, BGI Ltd. has and is actively, knowingly, and intentionally inducing
21 infringement of at least claim 1 of the '537 Patent through a range of activities related to the
22 BGISEQ and MGISEQ Systems. BGI Ltd. is responsible for substantial marketing of BGI products,
23 including the MGISEQ and BGISEQ, and is threatening to encourage and support the sale of those
24 products in the United States.

25 51. BGI Ltd. has induced infringement by controlling, with the other Defendants, the
26 design, manufacture, and supply of the BGISEQ and MGISEQ systems with the knowledge and
27 specific intent that users will use the BGISEQ and MGISEQ systems to infringe by performing the
28

1 patented methods of the '537 Patent. For example, BGI has controlled, with the other Defendants,
2 the design, manufacture, and supply of the BGISEQ and MGISEQ systems such that the BGISEQ
3 and MGISEQ systems have with pre-programmed software protocols that control operation of the
4 BGISEQ and MGISEQ systems so that users are given the sole option of operating the BGISEQ
5 and MGISEQ systems in a manner that infringes.

6 52. BGI has induced infringement by controlling, with the other Defendants, the design,
7 manufacture, and supply of materials or apparatuses to be used with the BGISEQ and MGISEQ
8 systems, including for example the MGISP-960, with the knowledge and specific intent that users
9 will use these products to infringe by performing the patented methods of the '537 Patent.

10 53. BGI Ltd. has induced infringement by controlling, with the other Defendants, the
11 design, manufacture, and supply of various reagent kits (which use specialized labeled nucleotides),
12 including for example the BGISEQ-500 paired-end 100 kit contains all reagents (including dNTPs
13 that are needed to perform DNA sequencing on the BGISEQ-500), with the knowledge and specific
14 intent that users will use these products to infringe by performing the patented methods of the '537
15 Patent.

16 54. BGI Ltd. has induced infringement by disseminating promotional and marketing
17 materials relating to the BGISEQ and MGISEQ systems with the knowledge and specific intent that
18 users will use these sequencing instruments to infringe by performing the patented methods of the
19 '537 Patent. For example, BGI Ltd. CEO, Ye Yin, promoted the BGISEQ-500 at the J.P. Morgan
20 Conference in 2018.

21 55. BGI Ltd. has induced infringement by distributing other instructional materials,
22 product manuals, technical materials, and bioinformatics software platforms with the knowledge
23 and the specific intent to encourage and facilitate the infringing use of their MGISEQ and BGISEQ
24 products. For example, BGI Ltd. is responsible for the MGISEQ and BGISEQ User Manuals, the
25 various reagent kit manuals, technical handbooks, product detail sheets, and technical specification
26 sheets. These materials direct users to use the MGISEQ and BGISEQ and related products in an
27 infringing manner.

1 56. BGI Ltd. performed all these acts with knowledge that the induced acts constitute
2 infringement. At a minimum, BGI Ltd. acted with knowledge of or willful blindness with regards
3 to users' underlying infringement.

4 Contributory Infringement By BGI Ltd.

5 57. BGI Ltd. is liable for contributory infringement of the '537 Patent pursuant to 35
6 U.S.C. § 271(c). Specifically, BGI Ltd. has and is contributing to the infringement of the '537
7 Patent by, without authority, supplying within the United States, materials and apparatuses for
8 practicing the claimed invention of the '537 Patent, including at least the MGISEQ and BGISEQ,
9 the MGISP-960, and the MGISEQ and BGISEQ reagent kits (which use specialized labeled
10 nucleotides). These products constitute a material part of the claimed invention of the '537 Patent.

11 58. BGI Ltd. knows that the BGISEQ and MGISEQ, materials and apparatuses designed
12 for use with the BGISEQ and MGISEQ, and the BGISEQ and MGISEQ reagent kits, constitute
13 material parts of the inventions of the '537 Patent and that they are not a staple article or commodity
14 of commerce suitable for substantial non-infringing use. As documented above, the BGISEQ and
15 MGISEQ is a specialized sequencing instrument that carries out a specific method for sequencing
16 DNA using specific labeled nucleotides. As such, neither the BGISEQ and MGISEQ, the materials
17 or apparatuses specifically designed for use with the BGISEQ and MGISEQ, nor the BGISEQ and
18 MGISEQ reagent kits are a staple article of commerce suitable for substantial non-infringing use.
19 BGI Ltd. knows that the BGISEQ and MGISEQ, the materials or apparatuses specifically designed
20 for use with the BGISEQ and MGISEQ, and the BGISEQ and MGISEQ reagents kits are not staple
21 articles or commodities of commerce suitable for substantial non-infringing use because these
22 products have no use apart from infringing the '537 Patent. BGI Ltd. knows that the use of its
23 products infringe the '537 Patent and supplies them anyway.

24 Willful Infringement By BGI Ltd.

25 59. As set forth throughout this Complaint, BGI Ltd. has acted willfully and egregiously
26 in performing the acts of infringement and threatening to perform the acts of infringement identified
27 in this Complaint. BGI Ltd.'s infringement of the '537 Patent has been and is deliberate and willful
28

1 and constitutes egregious misconduct. Despite actual knowledge of the '537 Patent since at least
2 before October 5, 2017, the date CGI filed two petitions for *inter partes* review in attempt to
3 invalidate the '537 Patent and failed, and at least as far back as May 24, 2016, when Plaintiffs filed
4 suit on the '537 Patent in *Illumina, Inc. et al. v. Qiagen N.V. et al.* (Civ. A. No. 16-cv-02788-WHA),
5 of which BGI Ltd. should have been aware, BGI Ltd. continues to perform the acts of infringement
6 and threatens to perform the acts of infringement identified in this Complaint. In performing the
7 acts of infringement and threatening to perform the acts of infringement identified in this Complaint,
8 BGI Ltd. has been willfully blind to its ongoing infringement.

9 60. BGI Ltd.'s infringement of the '537 Patent has injured Illumina in its business and
10 property rights. Illumina is entitled to recovery of monetary damages for such injuries pursuant to
11 35 U.S.C. § 284 in an amount to be determined at trial. Illumina deserves treble damages and the
12 reimbursement of its fees and costs as set forth in 35 U.S.C. §§ 284 and 285.

13 61. BGI Ltd.'s infringement of the '537 Patent has caused irreparable harm to Illumina
14 and will continue to cause such harm unless and until their infringing activities are enjoined by this
15 Court.

16 **BGI Americas' Infringement of the '537 Patent**

17 62. Illumina's patented sequencing technology is well-known and has been enforced
18 very publicly against infringers. Together with the other Defendants, BGI Americas has copied that
19 technology. BGI Americas has had knowledge of the '537 Patent since at least before October 5,
20 2017, the date CGI filed two petitions for *inter partes* review in attempt to invalidate the '537 Patent
21 and failed.

22 **Direct Infringement By BGI Americas**

23 63. BGI Americas has and is directly infringing the '537 Patent pursuant to 35 U.S.C. §
24 271(a), literally or under the doctrine of equivalents, by using the MGISEQ and BGISEQ within
25 the United States, among other infringing acts. Specifically, BGI Americas has used the MGISEQ
26 and BGISEQ in the United States at its San Jose, California facility.

1 Induced Infringement By BGI Americas

2 64. BGI Americas is liable for their induced infringement of the '537 Patent pursuant to
3 35 U.S.C. § 271(b). Specifically, BGI Americas has and is actively, knowingly, and intentionally
4 inducing infringement of at least claim 1 of the '537 Patent through a range of activities related to
5 the MGISEQ and BGISEQ, among other things.

6 65. BGI Americas is inducing infringement by promoting the use of the MGISEQ and
7 BGISEQ with the knowledge and specific intent that users will use the MGISEQ and BGISEQ to
8 infringe by performing the patented methods of the '537 Patent. BGI Americas is responsible for
9 substantial marketing of BGI products, including the MGISEQ and BGISEQ, and is threatening to
10 encourage and support the sale of those products in the United States.

11 66. BGI Americas is inducing infringement by disseminating promotional and marketing
12 materials relating to the BGISEQ and MGISEQ with the knowledge and specific intent that users
13 will use the BGISEQ and MGISEQ to infringe by performing the patented methods of the '537
14 Patent.

15 67. BGI Americas is inducing infringement by distributing other instructional materials,
16 product manuals, technical materials, and bioinformatics software platforms with the knowledge
17 and the specific intent to encourage and facilitate the infringing use of their BGISEQ and MGISEQ
18 products. These materials direct users to use the BGISEQ and MGISEQ and related products in an
19 infringing manner. By providing reagent kits for use on the BGISEQ and MGISEQ, BGI Americas
20 induces infringement.

21 68. BGI Americas acted with knowledge that the induced acts constitute infringement.
22 BGI Americas acted with knowledge of or willful blindness with regards to users' underlying
23 infringement.

24 Contributory Infringement by BGI Americas

25 69. BGI Americas is liable for contributory infringement of the '537 Patent pursuant to
26 35 U.S.C. § 271(c). Specifically, BGI Americas contributes to the infringement of the '537 Patent
27 by, without authority, supplying within the United States materials and apparatuses for practicing
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1 the claimed invention of the '537 Patent, including at least the BGISEQ and MGISEQ, the MGISP-
2 960, and the associated reagent kits (which use specialized labeled nucleotides). These products
3 constitute a material part of the claimed inventions of the '537 Patent.

4 70. BGI Americas knows that the BGISEQ and MGISEQ, materials and apparatuses
5 designed for use with the BGISEQ and MGISEQ, and the BGISEQ and MGISEQ reagent kits,
6 constitute material parts of the inventions of the '537 Patent and that they are not a staple article or
7 commodity of commerce suitable for substantial non-infringing use. As documented above, the
8 BGISEQ and MGISEQ are specialized sequencing instruments that carry out a specific method for
9 sequencing DNA using specific labeled nucleotides. As such, neither the BGISEQ and MGISEQ,
10 the materials or apparatuses specifically designed for use with the BGISEQ and MGISEQ, nor the
11 BGISEQ and MGISEQ reagent kits are a staple article of commerce suitable for substantial non-
12 infringing use. BGI Americas knows that the BGISEQ and MGISEQ, the materials or apparatuses
13 specifically designed for use with the BGISEQ and MGISEQ, and the BGISEQ and MGISEQ
14 reagents kits are not staple articles or commodities of commerce suitable for substantial non-
15 infringing use because these products have no use apart from infringing the '537 Patent. BGI
16 Americas knows that the use of its products infringe the '537 Patent and supplies them anyway.

17 Willful Infringement By BGI Americas

18 71. As set forth throughout this Complaint, BGI Americas has acted willfully and
19 egregiously in performing the acts of infringement and threatening to perform the acts of
20 infringement identified in this Complaint. BGI Americas' infringement of the '537 Patent has been
21 and is deliberate and willful and constitutes egregious misconduct. Despite actual knowledge of
22 the '537 Patent since at least before October 5, 2017, the date CGI filed two petitions for *inter partes*
23 review in attempt to invalidate the '537 Patent and failed, and at least as far back as May 24, 2016,
24 when Plaintiffs filed suit on the '537 Patent in *Illumina, Inc. et al. v. Qiagen N.V. et al.* (Civ. A. No.
25 16-cv-02788-WHA), of which BGI Americas should have been aware, BGI Americas continues to
26 perform the acts of infringement and threatens to perform the acts of infringement identified in this
27 Complaint. In performing the acts of infringement and threatening to perform the acts of
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1 infringement identified in this Complaint, BGI Americas has been willfully blind to its ongoing
2 infringement.

3 72. BGI Americas' infringement of the '537 Patent has injured Illumina in its business
4 and property rights. Illumina is entitled to recovery of monetary damages for such injuries pursuant
5 to 35 U.S.C. § 284 in an amount to be determined at trial. Illumina deserves treble damages and
6 the reimbursement of its fees and costs as set forth in 35 U.S.C. §§ 284 and 285.

7 73. BGI Americas' infringement of the '537 Patent has caused irreparable harm to
8 Illumina and will continue to cause such harm unless and until their infringing activities are enjoined
9 by this Court.

10 **MGI Ltd.'s Infringement of the '537 Patent**

11 74. Illumina's patented sequencing technology is well-known and has been enforced
12 very publicly against infringers. Together with the other Defendants, MGI Ltd. has copied that
13 technology. MGI Ltd. has had knowledge of the '537 Patent since at least before October 5, 2017,
14 the date CGI filed two petitions for *inter partes* review in attempt to invalidate the '537 Patent and
15 failed.

16 **Direct Infringement By MGI Ltd.**

17 75. MGI Ltd. directly infringes the '537 Patent pursuant to 35 U.S.C. § 271(a), literally
18 or under the doctrine of equivalents, because it is responsible for the use of MGISEQ and BGISEQ
19 products in the United States. Specifically, because MGI Ltd. claims to be the "leading
20 manufacturer and developer of BGI's proprietary NGS instrumentation," MGI Ltd. has used the
21 MGISEQ and BGISEQ in the United States. MGI Ltd.'s website states that its San Jose, California
22 facility has a "Research Center" and a "Commercial and After-Sales Service Center."

23 **Induced Infringement By MGI Ltd.**

24 76. MGI Ltd. is liable for the induced infringement of the '537 Patent pursuant to 35
25 U.S.C. § 271(b). Specifically, MGI Ltd. is actively, knowingly, and intentionally inducing
26 infringement of at least claims 1 of the '537 Patent through a range of activities related to the
27 MGISEQ and BGISEQ, among other infringing acts. MGI Ltd. is responsible for substantial
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1 marketing of BGI products, including the MGISEQ and BGISEQ, and is threatening to encourage
2 and support the sale of those products in the United States.

3 77. MGI Ltd. has induced infringement by controlling, with the other Defendants, the
4 design, manufacture, and supply of the MGISEQ and BGISEQ with the knowledge and specific
5 intent that users will use the MGISEQ and BGISEQ to infringe by performing the patented methods
6 of the '537 Patent. For example, MGI Ltd. is the "legal manufacturer" of the MGISEQ and
7 BGISEQ. MGI Ltd. controls the website on which MGISEQ and BGISEQ is marketed and sold.
8 MGI Ltd. controls the website that hosts *inter alia* the MGISEQ and BGISEQ User Manual(s), the
9 various reagent kit manuals, technical handbooks, product detail sheets, and technical specification
10 sheets. These materials direct users to use the MGISEQ and BGISEQ and MGISEQ and BGISEQ
11 reagent kits in an infringing manner. By providing reagent kits and directing users to purchase these
12 reagent kits for use on the MGISEQ and MGISEQ, MGI Ltd. induces infringement.

13 78. MGI Ltd. has induced infringement by controlling, with the other Defendants, the
14 design, manufacture, and supply of materials or apparatuses to be used with the MGISEQ and
15 BGISEQ Systems, including for example the MGISP-960, with the knowledge and specific intent
16 that users will use these products to infringe by performing the patented methods of the '537 Patent.

17 79. MGI Ltd. has induced infringement by controlling, with the other Defendants, the
18 design, manufacture, and supply of various MGISEQ and BGISEQ reagent kits (which use
19 specialized labeled nucleotides), with the knowledge and specific intent that users will use these
20 products to infringe by performing the patented methods of the claimed inventions. For example,
21 Ms. Abigail Frank, Field Service Engineer at MGI represents that her job entails "servic[ing] NGS
22 instruments and lab automated work stations at Complete Genomics in San Jose, as well as external
23 customers throughout North and South America." Ex. 28.

1 80. MGI Ltd. has induced infringement by users of its products by disseminating
2 promotional and marketing materials relating to the MGISEQ and BGISEQ with the knowledge and
3 specific intent that users will use the MGISEQ or BGISEQ to infringe by performing the patented
4 methods of the '537 Patent. MGI Ltd. controls the website that hosts promotional and marketing
5 materials.

6 81. MGI Ltd. has induced infringement by distributing other instructional materials,
7 product manuals, technical materials, and bioinformatics software platforms with the knowledge
8 and the specific intent to encourage and facilitate the infringing use of their MGISEQ and BGISEQ
9 products. For example, MGI Ltd. is responsible for the MGISEQ and BGISEQ User Manuals, the
10 various reagent kit manuals, technical handbooks, product detail sheets, and technical specification
11 sheets, all of which are available on the MGI Ltd.'s website. These materials direct users to use the
12 MGISEQ and BGISEQ and related products in an infringing manner. For example, the MGISEQ
13 and BGISEQ reagent kit handbooks state that the kits are for preparation of DNA sequencing using
14 the MGISEQ and BGISEQ, which are sold with pre-programmed software protocols that control
15 operation of the MGISEQ and BGISEQ so that each use of the MGISEQ and BGISEQ infringes.
16 By providing reagent kits and directing users to purchase these reagent kits for use on the MGISEQ
17 and BGISEQ, MGI Ltd. induces infringement.

18 82. MGI Ltd. acted with knowledge that the induced acts constitute infringement. MGI
19 Ltd. acted with knowledge of or willful blindness with regards to users' underlying infringement.

20 Contributory Infringement By MGI Ltd.

21 83. MGI Ltd. is liable for contributory infringement of the '537 Patent pursuant to 35
22 U.S.C. § 271(c). Specifically, MGI Ltd. contributes to the infringement of the '537 Patent by,
23 without authority, supplying within the United States, materials and apparatuses for practicing the
24 claimed invention of the '537 Patent, including at least the MGISEQ and BGISEQ, the MGISP-
25 960, and the associated reagent kits (which use specialized labeled nucleotides). These products
26 constitute a material part of the claimed invention of the '537 Patent.

84. MGI Ltd. knows that the MGISEQ and BGISEQ, materials and apparatuses designed for use with the MGISEQ and BGISEQ, and the associated reagent kits, constitute material parts of the inventions of the '537 Patent and that they are not a staple article or commodity of commerce suitable for substantial non-infringing use. As documented above, the MGISEQ and BGISEQ are specialized sequencing instruments that carry out a specific method for sequencing DNA using specific labeled nucleotides. As such, neither the MGISEQ and BGISEQ, the materials or apparatuses specifically designed for use with the MGISEQ and BGISEQ, nor the MGISEQ and BGISEQ reagent kits are a staple article of commerce suitable for substantial non-infringing use. MGI Ltd. knows that the MGISEQ and BGISEQ, the materials or apparatuses specifically designed for use with the MGISEQ and BGISEQ, and the MGISEQ and BGISEQ reagents kits are not staple articles or commodities of commerce suitable for substantial non-infringing use because these products have no use apart from infringing the '537 Patent. MGI Ltd. knows that the use of its products infringe the '537 Patent and supplies them anyway.

Willful Infringement By MGI Ltd.

85. As set forth throughout this Complaint, MGI Ltd. has acted willfully and egregiously in performing the acts of infringement and threatening to perform the acts of infringement identified in this Complaint. MGI Ltd.'s infringement of the '537 Patent has been and is deliberate and willful and constitutes egregious misconduct. Despite actual knowledge of the '537 Patent since at least before October 5, 2017, the date CGI filed two petitions for *inter partes* review in attempt to invalidate the '537 Patent and failed, and at least as far back as May 24, 2016, when Plaintiffs filed suit on the '537 Patent in *Illumina, Inc. et al. v. Qiagen N.V. et al.* (Civ. A. No. 16-cv-02788-WHA), of which MGI Ltd. should have been aware, MGI Ltd. continues to perform the acts of infringement and threatens to perform the acts of infringement identified in this Complaint. In performing the acts of infringement and threatening to perform the acts of infringement identified in this Complaint, MGI Ltd. has been willfully blind to its ongoing infringement.

86. MGI Ltd's infringement of the '537 Patent has injured Illumina in its business and property rights. Illumina is entitled to recovery of monetary damages for such injuries pursuant to 35 U.S.C. § 284 in an amount to be determined at trial. Illumina deserves treble damages and the reimbursement of its fees and costs as set forth in 35 U.S.C. §§ 284 and 285.

87. MGI Ltd.'s infringement of the '537 Patent has caused irreparable harm to Illumina and will continue to cause such harm unless and until their infringing activities are enjoined by this Court.

MGI Americas' Infringement of the '537 Patent

88. Illumina's patented sequencing technology is well-known and has been enforced very publicly against infringers. Together with the other Defendants, MGI Americas has copied that technology. MGI Americas has had knowledge of the '537 Patent since at least before October 5, 2017, the date CGI filed two petitions for *inter partes* review in attempt to invalidate the '537 Patent and failed.

Direct Infringement By MGI Americas

89. MGI Americas has and is directly infringing the '537 Patent pursuant to 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, by using the MGISEQ and BGISEQ within the United States. Specifically, because MGI Americas claims to be the "leading manufacturer and developer of BGI's proprietary NGS instrumentation," MGI Americas has used the MGISEQ and BGISEQ in the United States. MGI Americas' San Jose, California facility that has a "Research Center" and a "Commercial and After-Sales Service Center."

Induced Infringement By MGI Americas

90. MGI Americas is liable for their induced infringement of the '537 Patent pursuant to 35 U.S.C. § 271(b). Specifically, MGI Americas has and is actively, knowingly, and intentionally inducing of at least claims 1 of the '537 Patent through a range of activities related to the MGISEQ and BGISEQ, among other infringing acts. MGI Americas is responsible for substantial marketing of BGI products, including the MGISEQ and BGISEQ, and is threatening to encourage and support the sale of those products in the United States.

1 91. MGI Americas has induced infringement by controlling, with the other Defendants,
2 the design, manufacture and supply of the MGISEQ and BGISEQ with the knowledge and specific
3 intent that users will use the MGISEQ and BGISEQ to infringe by performing the patented methods
4 of the '537 Patent. MGI Americas distributes, *inter alia*, the MGISEQ and BGISEQ User
5 Manual(s), the various reagent kit manuals, technical handbooks, product detail sheets, and
6 technical specification sheets. These materials direct users to use the MGISEQ and BGISEQ and
7 MGISEQ and BGISEQ reagent kits in an infringing manner. By providing reagent kits and directing
8 users to purchase these reagent kits for use on the MGISEQ and MGISEQ, BGI Americas induces
9 infringement.

10 92. MGI Americas has induced infringement by distributing materials or apparatuses to
11 be used with the MGISEQ and BGISEQ Systems, including for example the MGISP-960, with the
12 knowledge and specific intent that users will use these products to infringe by performing the
13 patented methods of the '537 Patent.

14 93. MGI Americas has induced infringement by distributing MGISEQ and BGISEQ
15 reagent kits (which use specialized labeled nucleotides) with the knowledge and specific intent that
16 users will use these products to infringe by performing the patented methods of the '537 Patent. For
17 example, Ms. Abigail Frank, Field Service Engineer at MGI represents that her job entails
18 “servic[ing] NGS instruments and lab automated work stations at Complete Genomics in San Jose,
19 as well as external customers throughout North and South America.” Ex. 28.

20 94. MGI Americas has induced infringement by users of its products by disseminating
21 promotional and marketing materials relating to the MGISEQ and BGISEQ with the knowledge and
22 specific intent that users will use the MGISEQ or BGISEQ to infringe by performing the patented
23 methods of the '537 Patent.

24 95. MGI Americas has induced infringement by distributing other instructional
25 materials, product manuals, technical materials, and bioinformatics software platforms with the
26 knowledge and the specific intent to encourage and facilitate the infringing use of their MGISEQ
27 and BGISEQ products. For example, MGI Americas is responsible for the MGISEQ and BGISEQ
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1 User Manuals, the various reagent kit manuals, technical handbooks, product detail sheets, and
2 technical specification sheets. These materials direct users to use the MGISEQ and BGISEQ and
3 related products in an infringing manner. For example, the MGISEQ and BGISEQ reagent kit
4 handbooks state that the kits are for preparation of DNA sequencing using the MGISEQ and
5 BGISEQ, which are sold with pre-programmed software protocols that control operation of the
6 MGISEQ and BGISEQ so that each use of the MGISEQ and BGISEQ infringes. By providing
7 reagent kits and directing users to purchase these reagent kits for use on the MGISEQ and BGISEQ,
8 MGI Americas induces infringement.

9 96. MGI Americas acted with knowledge that the induced acts constitute infringement.
10 MGI Americas acted with knowledge of or willful blindness with regards to users' underlying
11 infringement.

12 Contributory Infringement By MGI Americas

13 97. MGI Americas is liable for contributory infringement of the '537 Patent pursuant to
14 35 U.S.C. § 271(c). Specifically, MGI Americas has and is contributing to the infringement of the
15 '537 Patent by, without authority, distributing within the United States, materials and apparatuses
16 for practicing the claimed invention of the '537 Patent, including at least the MGISEQ and BGISEQ,
17 the MGISP-960, and the associated reagent kits (which use specialized labeled nucleotides). These
18 products constitute a material part of the claimed invention of the '537 Patent.

19 98. MGI Americas knows that the MGISEQ and BGISEQ, materials and apparatuses
20 designed for use with the MGISEQ and BGISEQ, and the associated reagent kits, constitute material
21 parts of the inventions of the '537 Patent and that they are not a staple article or commodity of
22 commerce suitable for substantial non-infringing use. As documented above, the MGISEQ and
23 BGISEQ are specialized sequencing instruments that carry out a specific method for sequencing
24 DNA using specific labeled nucleotides. As such, neither the MGISEQ and BGISEQ, the materials
25 or apparatuses specifically designed for use with the MGISEQ and BGISEQ, nor the MGISEQ and
26 BGISEQ reagent kits are a staple article of commerce suitable for substantial non-infringing use.
27 MGI Americas knows that the MGISEQ and BGISEQ, the materials or apparatuses specifically
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1 designed for use with the MGISEQ and BGISEQ, and the MGISEQ and BGISEQ reagents kits are
2 not staple articles or commodities of commerce suitable for substantial non-infringing use because
3 these products have no use apart from infringing the '537 Patent. MGI Americas knows that the
4 use of its products infringe the '537 Patent and supplies them anyway.

5 Willful Infringement By MGI Americas

6 99. As set forth throughout this Complaint, MGI Americas has acted willfully and
7 egregiously in performing the acts of infringement and threatening to perform the acts of
8 infringement identified in this Complaint. MGI Americas' infringement of the '537 Patent has
9 been and is deliberate and willful and constitutes egregious misconduct. Despite actual knowledge
10 of the '537 Patent since at least before October 5, 2017, the date CGI filed two petitions for *inter*
11 *partes* review in attempt to invalidate the '537 Patent and failed, and at least as far back as May 24,
12 2016, when Plaintiffs filed suit on the '537 Patent in *Illumina, Inc. et al. v. Qiagen N.V. et al.* (Civ.
13 A. No. 16-cv-02788-WHA), of which MGI Americas should have been aware, MGI Americas
14 continues to perform the acts of infringement and threatens to perform the acts of infringement
15 identified in this Complaint. In performing the acts of infringement and threatening to perform the
16 acts of infringement identified in this Complaint, MGI Americas has been willfully blind to its
17 ongoing infringement.

18 100. MGI Americas' infringement of the '537 Patent has injured Illumina in its business
19 and property rights. Illumina is entitled to recovery of monetary damages for such injuries pursuant
20 to 35 U.S.C. § 284 in an amount to be determined at trial. Illumina deserves treble damages and
21 the reimbursement of its fees and costs as set forth in 35 U.S.C. §§ 284 and 285.

22 101. MGI Americas' infringement of the '537 Patent has caused irreparable harm to
23 Illumina and will continue to cause such harm unless and until their infringing activities are enjoined
24 by this Court.
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1 **CGI's Infringement of the '537 Patent**

2 102. Illumina's patented sequencing technology is well-known and has been enforced
3 very publicly against infringers. Together with the other Defendants, CGI has copied that
4 technology. CGI has had knowledge of the '537 Patent since at least before October 5, 2017, the
5 date it filed two petitions for *inter partes* review in attempt to invalidate the '537 Patent and failed.

6 **Direct Infringement By CGI**

7 103. CGI has and is directly infringing the '537 Patent pursuant to 35 U.S.C. § 271(a),
8 literally or under the doctrine of equivalents, by using the MGISEQ and BGISEQ within the United
9 States, among other infringing acts. CGI has installed MGISEQ and BGISEQ systems at CGI
10 locations in the United States, including its San Jose, California facility. CGI has used the MGISEQ
11 and BGISEQ in the United States.

12 **Induced Infringement by CGI**

13 104. CGI is liable for their induced infringement of the '537 Patent pursuant to 35 U.S.C.
14 § 271(b). Specifically, CGI has and is actively, knowingly, and intentionally inducing infringement
15 of at least claim 1 of the '537 Patent through a range of activities related to the MGISEQ and
16 BGISEQ, among other infringing acts. CGI is responsible for substantial marketing of BGI
17 products, including the MGISEQ and BGISEQ, and is threatening to encourage and support the sale
18 of those products in the United States.

19 105. CGI has induced infringement by controlling, with the other Defendants, the design,
20 manufacture, and supply of materials or apparatuses to be used with the MGISEQ and BGISEQ
21 Systems, including for example the MGISP-960, with the knowledge and specific intent that users
22 will use these products to infringe by performing the patented methods of the '537 Patent.

23 106. CGI has induced infringement by controlling, with the other Defendants, the design,
24 manufacture, and supply of various MGISEQ and BGISEQ reagent kits (which use specialized
25 labeled nucleotides), with the knowledge and specific intent that users will use these products to
26 infringe by performing the patented methods of the '537 Patent.

1 107. CGI has induced infringement by disseminating promotional and marketing
2 materials relating to the MGISEQ and BGISEQ with the knowledge and specific intent that users
3 will use the MGISEQ and BGISEQ to infringe by performing the patented methods of the '537
4 Patent.

5 108. CGI has induced infringement by creating distribution channels for the
6 aforementioned MGISEQ and BGISEQ, materials and apparatuses for use with the MGISEQ and
7 BGISEQ Systems, and the associated reagent kits, with the knowledge and specific intent that users
8 will use these products to infringe by performing the patented methods of the '537 Patent.

9 109. CGI has induced infringement by distributing other instructional materials, product
10 manuals, technical materials, and bioinformatics software platforms with the knowledge and the
11 specific intent to encourage and facilitate the infringing use of their MGISEQ and BGISEQ
12 products. These materials direct users to use the MGISEQ and BGISEQ and related products in an
13 infringing manner. For example, the MGISEQ and BGISEQ reagent kit manuals state that the kits
14 are for preparation of DNA sequencing using the MGISEQ and BGISEQ, which are sold with pre-
15 programmed software protocols that control operation of the MGISEQ and BGISEQ so that each
16 use of the MGISEQ and BGISEQ infringes. By providing reagent kits and directing users to
17 purchase these reagent kits for use on the MGISEQ and BGISEQ, CGI induces infringement.

18 110. CGI acted with knowledge that the induced acts constitute infringement. CGI acted
19 with knowledge of or willful blindness with regards to users' underlying infringement.

20 Contributory Infringement by CGI

21 111. CGI is liable for contributory infringement of the '537 Patent pursuant to 35 U.S.C.
22 § 271(c). Specifically, CGI has and is contributing to infringement of the '537 Patent by, without
23 authority, supplying within the United States, materials and apparatuses for practicing the claimed
24 invention of the '537 Patent, including at least the MGISEQ and BGISEQ, the MGISP-960, and the
25 associated reagent kits (which use specialized labeled nucleotides). These products constitute a
26 material part of the claimed invention of the '537 Patent.

112. CGI knows that the MGISEQ and BGISEQ, materials and apparatuses designed for use with the MGISEQ and BGISEQ, and the MGISEQ and BGISEQ reagent kits, constitute material parts of the inventions of the '537 Patent and that they are not a staple article or commodity of commerce suitable for substantial non-infringing use. As documented above, the MGISEQ and BGISEQ are specialized sequencing instruments that carry out a specific method for sequencing DNA using specific labeled nucleotides. As such, neither the MGISEQ and BGISEQ, the materials or apparatuses specifically designed for use with the MGISEQ and BGISEQ, nor the MGISEQ and BGISEQ reagent kits are a staple article of commerce suitable for substantial non-infringing use. CGI knows that the MGISEQ and BGISEQ, the materials or apparatuses specifically designed for use with the MGISEQ and BGISEQ, and the MGISEQ and BGISEQ reagents kits are not staple articles or commodities of commerce suitable for substantial non-infringing use because these products have no use apart from infringing the '537 Patent. CGI knows that the use of its products infringe the '537 Patent and supplies them anyway.

Willful Infringement By CGI

113. As set forth throughout this Complaint, CGI has acted willfully and egregiously in performing the acts of infringement and threatening to perform the acts of infringement identified in this Complaint. CGI's infringement of the '537 Patent has been and is deliberate and willful and constitutes egregious misconduct. Despite actual knowledge of the '537 Patent since at least before October 5, 2017, the date CGI filed two petitions for *inter partes* review in attempt to invalidate the '537 Patent and failed, and at least as far back as May 24, 2016, when Plaintiffs filed suit on the '537 Patent in *Illumina, Inc. et al. v. Qiagen N.V. et al.* (Civ. A. No. 16-cv-02788-WHA), of which CGI should have been aware, CGI continues to perform the acts of infringement and threatens to perform the acts of infringement identified in this Complaint. In performing the acts of infringement and threatening to perform the acts of infringement identified in this Complaint, CGI has been willfully blind to its ongoing infringement.

114. CGI's infringement of the '537 Patent has injured Illumina in its business and property rights. Illumina is entitled to recovery of monetary damages for such injuries pursuant to 35 U.S.C. § 284 in an amount to be determined at trial. Illumina deserves treble damages and the reimbursement of its fees and costs as set forth in 35 U.S.C. §§ 284 and 285.

115. CGI's infringement of the '537 Patent has caused irreparable harm to Illumina and will continue to cause such harm unless and until their infringing activities are enjoined by this Court.

COUNT II

Infringement of U.S. Patent No. 9,410,200 ("200 Patent")

116. Illumina re-alleges and incorporates by this reference the allegations contained throughout this Complaint into each allegation of infringement and request for remedies.

117. Defendants and users of Defendants' infringing products have and continue to directly infringe, literally or by equivalence, claim 1 of the '200 Patent by practicing one or more claims of the '200 Patent by using the MGISEQ and BGISEQ products and other infringing products. The following allegations identify the acts of direct, induced and contributory infringement by each named defendant as supplemented by the allegations throughout this Complaint.

BGI Ltd.'s Infringement of the '200 Patent

118. Illumina's patented sequencing technology is well-known and has been enforced very publicly against infringers. Together with the other Defendants, BGI Ltd. has copied that technology. BGI Ltd. has had knowledge of the '200 Patent since at least before October 5, 2017, the date CGI filed two petitions for *inter partes* review in attempt to invalidate the '537 Patent, a patent related to the '200 Patent, and failed.

119. BGI Ltd. has failed to resist the temptation of importing its infringing technology into the large United States market and has done so in the face of the '200 Patent. BGI Ltd. knows that its activities in connection with the MGISEQ and BGISEQ products will infringe the '200 Patent.

1 Direct Infringement By BGI Ltd.

2 120. BGI Ltd. has directly infringed and continues to directly infringe the '200 Patent
3 pursuant to 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, because it is
4 responsible for the use of MGISEQ and BGISEQ products in the United States. Specifically, BGI
5 Ltd. or those for whom it is responsible have used at least the MGISEQ-2000 and BGISEQ-500 in
6 its San Jose, California facility. BGI Ltd. controls and is responsible for, with the other Defendants,
7 directing the installation of the MGISEQ and BGISEQ products at the San Jose, California facility.

8 Induced Infringement by BGI Ltd.

9 121. BGI Ltd. is liable for the induced infringement of the '200 Patent pursuant to 35
10 U.S.C. § 271(b). Specifically, BGI Ltd. has and is actively, knowingly, and intentionally inducing
11 infringement of at least claim 1 of the '200 Patent through a range of activities related to the
12 BGISEQ and MGISEQ Systems. BGI Ltd. is responsible for substantial marketing of BGI products,
13 including the MGISEQ and BGISEQ, and is threatening to encourage and support the sale of those
14 products in the United States.

15 122. BGI Ltd. has induced infringement by controlling, with the other Defendants, the
16 design, manufacture, and supply of the BGISEQ and MGISEQ systems with the knowledge and
17 specific intent that users will use the BGISEQ and MGISEQ systems to infringe by performing the
18 patented methods of the '200 Patent. For example, BGI has controlled, with the other Defendants,
19 the design, manufacture, and supply of the BGISEQ and MGISEQ systems such that the BGISEQ
20 and MGISEQ systems have with pre-programmed software protocols that control operation of the
21 BGISEQ and MGISEQ systems so that users are given the sole option of operating the BGISEQ
22 and MGISEQ systems in a manner that infringes.

23 123. BGI has induced infringement by controlling, with the other Defendants, the design,
24 manufacture, and supply of materials or apparatuses to be used with the BGISEQ and MGISEQ
25 systems, including for example the MGISP-960, with the knowledge and specific intent that users
26 will use these products to infringe by performing the patented methods of the '200 Patent.

1 124. BGI Ltd. has induced infringement by controlling, with the other Defendants, the
2 design, manufacture, and supply of various reagent kits (which use specialized labeled nucleotides),
3 including for example the BGISEQ-500 paired-end 100 kit contains all reagents (including dNTPs
4 that are needed to perform DNA sequencing on the BGISEQ-500), with the knowledge and specific
5 intent that users will use these products to infringe by performing the patented methods of the '200
6 Patent.

7 125. BGI Ltd. has induced infringement by disseminating promotional and marketing
8 materials relating to the BGISEQ and MGISEQ systems with the knowledge and specific intent that
9 users will use these sequencing instruments to infringe by performing the patented methods of the
10 '200 Patent. For example, BGI Ltd. CEO, Ye Yin, promoted the BGISEQ-500 at the J.P. Morgan
11 Conference in 2018.

12 126. BGI Ltd. has induced infringement by distributing other instructional materials,
13 product manuals, technical materials, and bioinformatics software platforms with the knowledge
14 and the specific intent to encourage and facilitate the infringing use of their MGISEQ and BGISEQ
15 products. For example, BGI Ltd. is responsible for the MGISEQ and BGISEQ User Manuals, the
16 various reagent kit manuals, technical handbooks, product detail sheets, and technical specification
17 sheets. These materials direct users to use the MGISEQ and BGISEQ and related products in an
18 infringing manner.

19 127. BGI Ltd. performed all these acts with knowledge that the induced acts constitute
20 infringement. At a minimum, BGI Ltd. acted with knowledge of or willful blindness with regards
21 to users' underlying infringement.
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1 Contributory Infringement By BGI Ltd.

2 128. BGI Ltd. is liable for contributory infringement of the '200 Patent pursuant to 35
3 U.S.C. § 271(c). Specifically, BGI Ltd. has and is contributing to the infringement of the '200
4 Patent by, without authority, supplying within the United States, materials and apparatuses for
5 practicing the claimed invention of the '200 Patent, including at least the MGISEQ and BGISEQ,
6 the MGISP-960, and the MGISEQ and BGISEQ reagent kits (which use specialized labeled
7 nucleotides). These products constitute a material part of the claimed invention of the '200 Patent.

8 129. BGI Ltd. knows that the BGISEQ and MGISEQ, materials and apparatuses designed
9 for use with the BGISEQ and MGISEQ, and the BGISEQ and MGISEQ reagent kits, constitute
10 material parts of the inventions of the '200 Patent and that they are not a staple article or commodity
11 of commerce suitable for substantial non-infringing use. As documented above, the BGISEQ and
12 MGISEQ is a specialized sequencing instrument that carries out a specific method for sequencing
13 DNA using specific labeled nucleotides. As such, neither the BGISEQ and MGISEQ, the materials
14 or apparatuses specifically designed for use with the BGISEQ and MGISEQ, nor the BGISEQ and
15 MGISEQ reagent kits are a staple article of commerce suitable for substantial non-infringing use.
16 BGI Ltd. knows that the BGISEQ and MGISEQ, the materials or apparatuses specifically designed
17 for use with the BGISEQ and MGISEQ, and the BGISEQ and MGISEQ reagents kits are not staple
18 articles or commodities of commerce suitable for substantial non-infringing use because these
19 products have no use apart from infringing the '200 Patent. BGI Ltd. knows that the use of its
20 products infringe the '200 Patent and supplies them anyway.

21 Willful Infringement By BGI Ltd.

22 130. As set forth throughout this Complaint, BGI Ltd. has acted willfully and egregiously
23 in performing the acts of infringement and threatening to perform the acts of infringement identified
24 in this Complaint. BGI Ltd.'s infringement of the '200 Patent has been and is deliberate and willful
25 and constitutes egregious misconduct. Despite knowledge of the '200 Patent since at least before
26 October 5, 2017, the date CGI filed two petitions for *inter partes* review in attempt to invalidate the
27 '537 Patent, a patent related to the '200 Patent, and failed, and at least as far back as May 24, 2016,
28

1 when Plaintiffs filed suit on the '537 Patent in *Illumina, Inc. et al. v. Qiagen N.V. et al.* (Civ. A. No.
2 16-cv-02788-WHA), of which BGI Ltd. should have been aware, BGI Ltd. continues to perform
3 the acts of infringement and threatens to perform the acts of infringement identified in this
4 Complaint. In performing the acts of infringement and threatening to perform the acts of
5 infringement identified in this Complaint, BGI Ltd. has been willfully blind to its ongoing
6 infringement.

7 131. BGI Ltd.'s infringement of the '200 Patent has injured Illumina in its business and
8 property rights. Illumina is entitled to recovery of monetary damages for such injuries pursuant to
9 35 U.S.C. § 284 in an amount to be determined at trial. Illumina deserves treble damages and the
10 reimbursement of its fees and costs as set forth in 35 U.S.C. §§ 284 and 285.

11 132. BGI Ltd.'s infringement of the '200 Patent has caused irreparable harm to Illumina
12 and will continue to cause such harm unless and until their infringing activities are enjoined by this
13 Court.

14 **BGI Americas' Infringement of the '200 Patent**

15 133. Illumina's patented sequencing technology is well-known and has been enforced
16 very publicly against infringers. Together with the other Defendants, BGI Americas has copied that
17 technology. BGI Americas has had knowledge of the '200 Patent since at least before October 5,
18 2017, the date CGI filed two petitions for *inter partes* review in attempt to invalidate the '537 Patent,
19 a patent related to the '200 Patent, and failed.

20 **Direct Infringement By BGI Americas**

21 134. BGI Americas has and is directly infringing the '200 Patent pursuant to 35 U.S.C. §
22 271(a), literally or under the doctrine of equivalents, by using the MGISEQ and BGISEQ within
23 the United States, among other infringing acts. Specifically, BGI Americas has used the MGISEQ
24 and BGISEQ in the United States at its San Jose, California facility.

Induced Infringement By BGI Americas

135. BGI Americas is liable for their induced infringement of the '200 Patent pursuant to 35 U.S.C. § 271(b). Specifically, BGI Americas has and is actively, knowingly, and intentionally inducing infringement of at least claim 1 of the '200 Patent through a range of activities related to the MGISEQ and BGISEQ, among other things.

136. BGI Americas is inducing infringement by promoting the use of the MGISEQ and BGISEQ with the knowledge and specific intent that users will use the MGISEQ and BGISEQ to infringe by performing the patented methods of the '200 Patent. BGI Americas is responsible for substantial marketing of BGI products, including the MGISEQ and BGISEQ, and is threatening to encourage and support the sale of those products in the United States.

137. BGI Americas is inducing infringement by disseminating promotional and marketing materials relating to the BGISEQ and MGISEQ with the knowledge and specific intent that users will use the BGISEQ and MGISEQ to infringe by performing the patented methods of the '200 Patent.

138. BGI Americas is inducing infringement by distributing other instructional materials, product manuals, technical materials, and bioinformatics software platforms with the knowledge and the specific intent to encourage and facilitate the infringing use of their BGISEQ and MGISEQ products. These materials direct users to use the BGISEQ and MGISEQ and related products in an infringing manner. By providing reagent kits for use on the BGISEQ and MGISEQ, BGI Americas induces infringement.

139. BGI Americas acted with knowledge that the induced acts constitute infringement. BGI Americas acted with knowledge of or willful blindness with regards to users' underlying infringement.

1 Contributory Infringement by BGI Americas

2 140. BGI Americas is liable for contributory infringement of the '200 Patent pursuant to
3 35 U.S.C. § 271(c). Specifically, BGI Americas contributes to the infringement of the '200 Patent
4 by, without authority, supplying within the United States materials and apparatuses for practicing
5 the claimed invention of the '200 Patent, including at least the BGISEQ and MGISEQ, the MGISP-
6 960, and the associated reagent kits (which use specialized labeled nucleotides). These products
7 constitute a material part of the claimed inventions of the '200 Patent.

8 141. BGI Americas knows that the BGISEQ and MGISEQ, materials and apparatuses
9 designed for use with the BGISEQ and MGISEQ, and the BGISEQ and MGISEQ reagent kits,
10 constitute material parts of the inventions of the '200 Patent and that they are not a staple article or
11 commodity of commerce suitable for substantial non-infringing use. As documented above, the
12 BGISEQ and MGISEQ are specialized sequencing instruments that carry out a specific method for
13 sequencing DNA using specific labeled nucleotides. As such, neither the BGISEQ and MGISEQ,
14 the materials or apparatuses specifically designed for use with the BGISEQ and MGISEQ, nor the
15 BGISEQ and MGISEQ reagent kits are a staple article of commerce suitable for substantial non-
16 infringing use. BGI Americas knows that the BGISEQ and MGISEQ, the materials or apparatuses
17 specifically designed for use with the BGISEQ and MGISEQ, and the BGISEQ and MGISEQ
18 reagents kits are not staple articles or commodities of commerce suitable for substantial non-
19 infringing use because these products have no use apart from infringing the '200 Patent. BGI
20 Americas knows that the use of its products infringe the '200 Patent and supplies them anyway.

21 Willful Infringement By BGI Americas

22 142. As set forth throughout this Complaint, BGI Americas has acted willfully and
23 egregiously in performing the acts of infringement and threatening to perform the acts of
24 infringement identified in this Complaint. BGI Americas' infringement of the '200 Patent has been
25 and is deliberate and willful and constitutes egregious misconduct. Despite knowledge of the '200
26 Patent since at least before October 5, 2017, the date CGI filed two petitions for *inter partes* review
27 in attempt to invalidate the '537 Patent, a patent related to the '200 Patent, and failed, and at least
28

1 as far back as May 24, 2016, when Plaintiffs filed suit on the '537 Patent in *Illumina, Inc. et al. v.*
2 *Qiagen N.V. et al.* (Civ. A. No. 16-cv-02788-WHA), of which BGI Americas should have been
3 aware, BGI Americas continues to perform the acts of infringement and threatens to perform the
4 acts of infringement identified in this Complaint. In performing the acts of infringement and
5 threatening to perform the acts of infringement identified in this Complaint, BGI Americas. has
6 been willfully blind to its ongoing infringement.

7 143. BGI Americas' infringement of the '200 Patent has injured Illumina in its business
8 and property rights. Illumina is entitled to recovery of monetary damages for such injuries pursuant
9 to 35 U.S.C. § 284 in an amount to be determined at trial. Illumina deserves treble damages and
10 the reimbursement of its fees and costs as set forth in 35 U.S.C. §§ 284 and 285.

11 144. BGI Americas' infringement of the '200 Patent has caused irreparable harm to
12 Illumina and will continue to cause such harm unless and until their infringing activities are enjoined
13 by this Court.

14 **MGI Ltd.'s Infringement of the '200 Patent**

15 145. Illumina's patented sequencing technology is well-known and has been enforced
16 very publicly against infringers. Together with the other Defendants, MGI Ltd. has copied that
17 technology. MGI Ltd. has had knowledge of the '200 Patent since at least before October 5, 2017,
18 the date CGI filed two petitions for *inter partes* review in attempt to invalidate the '537 Patent, a
19 patent related to the '200 Patent, and failed.

20 **Direct Infringement By MGI Ltd.**

21 146. MGI Ltd. directly infringes the '200 Patent pursuant to 35 U.S.C. § 271(a), literally
22 or under the doctrine of equivalents, because it is responsible for the use of MGISEQ and BGISEQ
23 products in the United States. Specifically, because MGI Ltd. claims to be the "leading
24 manufacturer and developer of BGI's proprietary NGS instrumentation," MGI Ltd. has used the
25 MGISEQ and BGISEQ in the United States. MGI Ltd.'s website clearly states that its San Jose,
26 California facility has a "Research Center" and a "Commercial and After-Sales Service Center."
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Induced Infringement By MGI Ltd.

147. MGI Ltd. is liable for the induced infringement of the '200 Patent pursuant to 35 U.S.C. § 271(b). Specifically, MGI Ltd. is actively, knowingly, and intentionally inducing infringement of at least claims 1 of the '200 Patent through a range of activities related to the MGISEQ and BGISEQ, among other infringing acts. MGI Ltd. is responsible for substantial marketing of BGI products, including the MGISEQ and BGISEQ, and is threatening to encourage and support the sale of those products in the United States.

148. MGI Ltd. has induced infringement by controlling, with the other Defendants, the design, manufacture, and supply of the MGISEQ and BGISEQ with the knowledge and specific intent that users will use the MGISEQ and BGISEQ to infringe by performing the patented methods of the '200 Patent. For example, MGI Ltd. is the "legal manufacturer" of the MGISEQ and BGISEQ. MGI Ltd. controls the website on which MGISEQ and BGISEQ is marketed and sold. MGI Ltd. controls the website that hosts *inter alia* the MGISEQ and BGISEQ User Manual(s), the various reagent kit manuals, technical handbooks, product detail sheets, and technical specification sheets. These materials direct users to use the MGISEQ and BGISEQ and MGISEQ and BGISEQ reagent kits in an infringing manner. By providing reagent kits and directing users to purchase these reagent kits for use on the MGISEQ and MGISEQ, MGI Ltd. induces infringement.

149. MGI Ltd. has induced infringement by controlling, with the other Defendants, the design, manufacture, and supply of materials or apparatuses to be used with the MGISEQ and BGISEQ Systems, including for example the MGISP-960, with the knowledge and specific intent that users will use these products to infringe by performing the patented methods of the '200 Patent.

150. MGI Ltd. has induced infringement by controlling, with the other Defendants, the design, manufacture, and supply of various MGISEQ and BGISEQ reagent kits (which use specialized labeled nucleotides), with the knowledge and specific intent that users will use these products to infringe by performing the patented methods of the claimed inventions. For example, Ms. Abigail Frank, Field Service Engineer at MGI represents that her job entails "servic[ing] NGS

1 instruments and lab automated work stations at Complete Genomics in San Jose, as well as external
2 customers throughout North and South America.” Ex. 28.

3 151. MGI Ltd. has induced infringement by users of its products by disseminating
4 promotional and marketing materials relating to the MGISEQ and BGISEQ with the knowledge and
5 specific intent that users will use the MGISEQ or BGISEQ to infringe by performing the patented
6 methods of the '200 Patent. MGI Ltd. controls the website that hosts promotional and marketing
7 materials.

8 152. MGI Ltd. has induced infringement by distributing other instructional materials,
9 product manuals, technical materials, and bioinformatics software platforms with the knowledge
10 and the specific intent to encourage and facilitate the infringing use of their MGISEQ and BGISEQ
11 products. For example, MGI Ltd. is responsible for the MGISEQ and BGISEQ User Manuals, the
12 various reagent kit manuals, technical handbooks, product detail sheets, and technical specification
13 sheets, all of which are available on the MGI Ltd.’s website. These materials direct users to use the
14 MGISEQ and BGISEQ and related products in an infringing manner. For example, the MGISEQ
15 and BGISEQ reagent kit handbooks state that the kits are for preparation of DNA sequencing using
16 the MGISEQ and BGISEQ, which are sold with pre-programmed software protocols that control
17 operation of the MGISEQ and BGISEQ so that each use of the MGISEQ and BGISEQ infringes.
18 By providing reagent kits and directing users to purchase these reagent kits for use on the MGISEQ
19 and BGISEQ, MGI Ltd. induces infringement.

20 153. MGI Ltd. acted with knowledge that the induced acts constitute infringement. MGI
21 Ltd. acted with knowledge of or willful blindness with regards to users’ underlying infringement.
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1 Contributory Infringement By MGI Ltd.

2 154. MGI Ltd. is liable for contributory infringement of the '200 Patent pursuant to 35
3 U.S.C. § 271(c). Specifically, MGI Ltd. contributes to the infringement of the '200 Patent by,
4 without authority, supplying within the United States, materials and apparatuses for practicing the
5 claimed invention of the '200 Patent, including at least the MGISEQ and BGISEQ, the MGISP-
6 960, and the associated reagent kits (which use specialized labeled nucleotides). These products
7 constitute a material part of the claimed invention of the '200 Patent.

8 155. MGI Ltd. knows that the MGISEQ and BGISEQ, materials and apparatuses designed
9 for use with the MGISEQ and BGISEQ, and the associated reagent kits, constitute material parts of
10 the inventions of the '200 Patent and that they are not a staple article or commodity of commerce
11 suitable for substantial non-infringing use. As documented above, the MGISEQ and BGISEQ are
12 specialized sequencing instruments that carry out a specific method for sequencing DNA using
13 specific labeled nucleotides. As such, neither the MGISEQ and BGISEQ, the materials or
14 apparatuses specifically designed for use with the MGISEQ and BGISEQ, nor the MGISEQ and
15 BGISEQ reagent kits are a staple article of commerce suitable for substantial non-infringing use.
16 MGI Ltd. knows that the MGISEQ and BGISEQ, the materials or apparatuses specifically designed
17 for use with the MGISEQ and BGISEQ, and the MGISEQ and BGISEQ reagents kits are not staple
18 articles or commodities of commerce suitable for substantial non-infringing use because these
19 products have no use apart from infringing the '200 Patent. MGI Ltd. knows that the use of its
20 products infringe the '200 Patent and supplies them anyway.

21 Willful Infringement By MGI Ltd.

22 156. As set forth throughout this Complaint, MGI Ltd. has acted willfully and egregiously
23 in performing the acts of infringement and threatening to perform the acts of infringement identified
24 in this Complaint. MGI Ltd.'s infringement of the '200 Patent has been and is deliberate and willful
25 and constitutes egregious misconduct. Despite knowledge of the '200 Patent since at least before
26 October 5, 2017, the date CGI filed two petitions for *inter partes* review in attempt to invalidate the
27 '537 Patent, a patent related to the '200 Patent, and failed, and at least as far back as May 24, 2016,
28

1 when Plaintiffs filed suit on the '537 Patent in *Illumina, Inc. et al. v. Qiagen N.V. et al.* (Civ. A. No.
2 16-cv-02788-WHA), of which MGI Ltd. should have been aware, MGI Ltd. continues to perform
3 the acts of infringement and threatens to perform the acts of infringement identified in this
4 Complaint. In performing the acts of infringement and threatening to perform the acts of
5 infringement identified in this Complaint, MGI Ltd. has been willfully blind to its ongoing
6 infringement.

7 157. MGI Ltd's infringement of the '200 Patent has injured Illumina in its business and
8 property rights. Illumina is entitled to recovery of monetary damages for such injuries pursuant to
9 35 U.S.C. § 284 in an amount to be determined at trial. Illumina deserves treble damages and the
10 reimbursement of its fees and costs as set forth in 35 U.S.C. §§ 284 and 285.

11 158. MGI Ltd.'s infringement of the '200 Patent has caused irreparable harm to Illumina
12 and will continue to cause such harm unless and until their infringing activities are enjoined by this
13 Court.

14 **MGI Americas' Infringement of the '200 Patent**

15 159. Illumina's patented sequencing technology is well-known and has been enforced
16 very publicly against infringers. Together with the other Defendants, MGI Americas has copied
17 that technology. MGI Americas has had knowledge of the '200 Patent since at least before October
18 5, 2017, the date CGI filed two petitions for *inter partes* review in attempt to invalidate the '537
19 Patent, a patent related to the '200 Patent, and failed.

20 **Direct Infringement By MGI Americas**

21 160. MGI Americas has and is directly infringing the '200 Patent pursuant to 35 U.S.C. §
22 271(a), literally or under the doctrine of equivalents, by using the MGISEQ and BGISEQ within
23 the United States. Specifically, because MGI Americas claims to be the "leading manufacturer and
24 developer of BGI's proprietary NGS instrumentation," MGI Americas has used the MGISEQ and
25 BGISEQ in the United States. MGI Americas' San Jose, California facility that has a "Research
26 Center" and a "Commercial and After-Sales Service Center."
27
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Induced Infringement By MGI Americas

161. MGI Americas is liable for their induced infringement of the '200 Patent pursuant to 35 U.S.C. § 271(b). Specifically, MGI Americas has and is actively, knowingly, and intentionally inducing of at least claims 1 of the '200 Patent through a range of activities related to the MGISEQ and BGISEQ, among other infringing acts. MGI Americas is responsible for substantial marketing of BGI products, including the MGISEQ and BGISEQ, and is threatening to encourage and support the sale of those products in the United States.

162. MGI Americas has induced infringement by controlling, with the other Defendants, the design, manufacture and supply of the MGISEQ and BGISEQ with the knowledge and specific intent that users will use the MGISEQ and BGISEQ to infringe by performing the patented methods of the '200 Patent. MGI Americas distributes, *inter alia*, the MGISEQ and BGISEQ User Manual(s), the various reagent kit manuals, technical handbooks, product detail sheets, and technical specification sheets. These materials direct users to use the MGISEQ and BGISEQ and MGISEQ and BGISEQ reagent kits in an infringing manner. By providing reagent kits and directing users to purchase these reagent kits for use on the MGISEQ and MGISEQ, BGI Americas induces infringement.

163. MGI Americas has induced infringement by distributing materials or apparatuses to be used with the MGISEQ and BGISEQ Systems, including for example the MGISP-960, with the knowledge and specific intent that users will use these products to infringe by performing the patented methods of the '200 Patent.

164. MGI Americas has induced infringement by distributing MGISEQ and BGISEQ reagent kits (which use specialized labeled nucleotides) with the knowledge and specific intent that users will use these products to infringe by performing the patented methods of the '200 Patent. For example, Ms. Abigail Frank, Field Service Engineer at MGI represents that her job entails "servic[ing] NGS instruments and lab automated work stations at Complete Genomics in San Jose, as well as external customers throughout North and South America." Ex. 28.

1 165. MGI Americas has induced infringement by users of its products by disseminating
2 promotional and marketing materials relating to the MGISEQ and BGISEQ with the knowledge and
3 specific intent that users will use the MGISEQ or BGISEQ to infringe by performing the patented
4 methods of the '200 Patent.

5 166. MGI Americas has induced infringement by distributing other instructional
6 materials, product manuals, technical materials, and bioinformatics software platforms with the
7 knowledge and the specific intent to encourage and facilitate the infringing use of their MGISEQ
8 and BGISEQ products. For example, MGI Americas is responsible for the MGISEQ and BGISEQ
9 User Manuals, the various reagent kit manuals, technical handbooks, product detail sheets, and
10 technical specification sheets. These materials direct users to use the MGISEQ and BGISEQ and
11 related products in an infringing manner. For example, the MGISEQ and BGISEQ reagent kit
12 handbooks state that the kits are for preparation of DNA sequencing using the MGISEQ and
13 BGISEQ, which are sold with pre-programmed software protocols that control operation of the
14 MGISEQ and BGISEQ so that each use of the MGISEQ and BGISEQ infringes. By providing
15 reagent kits and directing users to purchase these reagent kits for use on the MGISEQ and BGISEQ,
16 MGI Americas induces infringement.

17 167. MGI Americas acted with knowledge that the induced acts constitute infringement.
18 MGI Americas acted with knowledge of or willful blindness with regards to users' underlying
19 infringement.

20 Contributory Infringement By MGI Americas

21 168. MGI Americas is liable for contributory infringement of the '200 Patent pursuant to
22 35 U.S.C. § 271(c). Specifically, MGI Americas has and is contributing to the infringement of the
23 '200 Patent by, without authority, distributing within the United States, materials and apparatuses
24 for practicing the claimed invention of the '200 Patent, including at least the MGISEQ and BGISEQ,
25 the MGISP-960, and the associated reagent kits (which use specialized labeled nucleotides). These
26 products constitute a material part of the claimed invention of the '200 Patent.

169. MGI Americas knows that the MGISEQ and BGISEQ, materials and apparatuses designed for use with the MGISEQ and BGISEQ, and the associated reagent kits, constitute material parts of the inventions of the '200 Patent and that they are not a staple article or commodity of commerce suitable for substantial non-infringing use. As documented above, the MGISEQ and BGISEQ are specialized sequencing instruments that carry out a specific method for sequencing DNA using specific labeled nucleotides. As such, neither the MGISEQ and BGISEQ, the materials or apparatuses specifically designed for use with the MGISEQ and BGISEQ, nor the MGISEQ and BGISEQ reagent kits are a staple article of commerce suitable for substantial non-infringing use. MGI Americas knows that the MGISEQ and BGISEQ, the materials or apparatuses specifically designed for use with the MGISEQ and BGISEQ, and the MGISEQ and BGISEQ reagents kits are not staple articles or commodities of commerce suitable for substantial non-infringing use because these products have no use apart from infringing the '200 Patent. MGI Americas knows that the use of its products infringe the '200 Patent and supplies them anyway.

Willful Infringement By MGI Americas

170. As set forth throughout this Complaint, MGI Americas has acted willfully and egregiously in performing the acts of infringement and threatening to perform the acts of infringement identified in this Complaint. MGI Americas' infringement of the '200 Patent has been and is deliberate and willful and constitutes egregious misconduct. Despite knowledge of the '200 Patent since at least before October 5, 2017, the date CGI filed two petitions for *inter partes* review in attempt to invalidate the '537 Patent, a patent related to the '200 Patent, and failed, and at least as far back as May 24, 2016, when Plaintiffs filed suit on the '537 Patent in *Illumina, Inc. et al. v. Qiagen N.V. et al.* (Civ. A. No. 16-cv-02788-WHA), of which MGI Americas should have been aware, MGI Americas continues to perform the acts of infringement and threatens to perform the acts of infringement identified in this Complaint. In performing the acts of infringement and threatening to perform the acts of infringement identified in this Complaint, MGI Americas has been willfully blind to its ongoing infringement.

1 171. MGI Americas' infringement of the '200 Patent has injured Illumina in its business
2 and property rights. Illumina is entitled to recovery of monetary damages for such injuries pursuant
3 to 35 U.S.C. § 284 in an amount to be determined at trial. Illumina deserves treble damages and
4 the reimbursement of its fees and costs as set forth in 35 U.S.C. §§ 284 and 285.

5 172. MGI Americas' infringement of the '200 Patent has caused irreparable harm to
6 Illumina and will continue to cause such harm unless and until their infringing activities are enjoined
7 by this Court.

8 **CGI's Infringement of the '200 Patent**

9 173. Illumina's patented sequencing technology is well-known and has been enforced
10 very publicly against infringers. Together with the other Defendants, CGI has copied that
11 technology. CGI has had knowledge of the '200 Patent since at least before October 5, 2017, the
12 date it filed two petitions for *inter partes* review in attempt to invalidate the '537 Patent, a patent
13 related to the '200 Patent, and failed.

14 **Direct Infringement By CGI**

15 174. CGI has and is directly infringing the '200 Patent pursuant to 35 U.S.C. § 271(a),
16 literally or under the doctrine of equivalents, by using the MGISEQ and BGISEQ within the United
17 States, among other infringing acts. CGI has installed MGISEQ and BGISEQ systems at CGI
18 locations in the United States, including its San Jose, California facility. CGI has used the MGISEQ
19 and BGISEQ in the United States.

20 **Induced Infringement by CGI**

21 175. CGI is liable for their induced infringement of the '200 Patent pursuant to 35 U.S.C.
22 § 271(b). Specifically, CGI has and is actively, knowingly, and intentionally inducing infringement
23 of at least claim 1 of the '200 Patent through a range of activities related to the MGISEQ and
24 BGISEQ, among other infringing acts. CGI is responsible for substantial marketing of BGI
25 products, including the MGISEQ and BGISEQ, and is threatening to encourage and support the sale
26 of those products in the United States.

1 176. CGI has induced infringement by controlling, with the other Defendants, the design,
2 manufacture, and supply of materials or apparatuses to be used with the MGISEQ and BGISEQ
3 Systems, including for example the MGISP-960, with the knowledge and specific intent that users
4 will use these products to infringe by performing the patented methods of the '200 Patent.

5 177. CGI has induced infringement by controlling, with the other Defendants, the design,
6 manufacture, and supply of various MGISEQ and BGISEQ reagent kits (which use specialized
7 labeled nucleotides), with the knowledge and specific intent that users will use these products to
8 infringe by performing the patented methods of the '200 Patent.

9 178. CGI has induced infringement by disseminating promotional and marketing
10 materials relating to the MGISEQ and BGISEQ with the knowledge and specific intent that users
11 will use the MGISEQ and BGISEQ to infringe by performing the patented methods of the '200
12 Patent.

13 179. CGI has induced infringement by creating distribution channels for the
14 aforementioned MGISEQ and BGISEQ, materials and apparatuses for use with the MGISEQ and
15 BGISEQ Systems, and the associated reagent kits, with the knowledge and specific intent that users
16 will use these products to infringe by performing the patented methods of the '200 Patent.

17 180. CGI has induced infringement by distributing other instructional materials, product
18 manuals, technical materials, and bioinformatics software platforms with the knowledge and the
19 specific intent to encourage and facilitate the infringing use of their MGISEQ and BGISEQ
20 products. These materials direct users to use the MGISEQ and BGISEQ and related products in an
21 infringing manner. For example, the MGISEQ and BGISEQ reagent kit manuals state that the kits
22 are for preparation of DNA sequencing using the MGISEQ and BGISEQ, which are sold with pre-
23 programmed software protocols that control operation of the MGISEQ and BGISEQ so that each
24 use of the MGISEQ and BGISEQ infringes. By providing reagent kits and directing users to
25 purchase these reagent kits for use on the MGISEQ and BGISEQ, CGI induces infringement.

26 181. CGI acted with knowledge that the induced acts constitute infringement. CGI acted
27 with knowledge of or willful blindness with regards to users' underlying infringement.
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1 Contributory Infringement by CGI

2 182. CGI is liable for contributory infringement of the '200 Patent pursuant to 35 U.S.C.
3 § 271(c). Specifically, CGI has and is contributing to infringement of the '200 Patent by, without
4 authority, supplying within the United States, materials and apparatuses for practicing the claimed
5 invention of the '200 Patent, including at least the MGISEQ and BGISEQ, the MGISP-960, and the
6 associated reagent kits (which use specialized labeled nucleotides). These products constitute a
7 material part of the claimed invention of the '200 Patent.

8 183. CGI knows that the MGISEQ and BGISEQ, materials and apparatuses designed for
9 use with the MGISEQ and BGISEQ, and the MGISEQ and BGISEQ reagent kits, constitute material
10 parts of the inventions of the '200 Patent and that they are not a staple article or commodity of
11 commerce suitable for substantial non-infringing use. As documented above, the MGISEQ and
12 BGISEQ are specialized sequencing instruments that carry out a specific method for sequencing
13 DNA using specific labeled nucleotides. As such, neither the MGISEQ and BGISEQ, the materials
14 or apparatuses specifically designed for use with the MGISEQ and BGISEQ, nor the MGISEQ and
15 BGISEQ reagent kits are a staple article of commerce suitable for substantial non-infringing use.
16 CGI knows that the MGISEQ and BGISEQ, the materials or apparatuses specifically designed for
17 use with the MGISEQ and BGISEQ, and the MGISEQ and BGISEQ reagents kits are not staple
18 articles or commodities of commerce suitable for substantial non-infringing use because these
19 products have no use apart from infringing the '200 Patent. CGI knows that the use of its products
20 infringe the '200 Patent and supplies them anyway.

21 Willful Infringement By CGI

22 184. As set forth throughout this Complaint, CGI has acted willfully and egregiously in
23 performing the acts of infringement and threatening to perform the acts of infringement identified
24 in this Complaint. CGI's infringement of the '200 Patent has been and is deliberate and willful and
25 constitutes egregious misconduct. Despite knowledge of the '200 Patent since at least before
26 October 5, 2017, the date CGI filed two petitions for *inter partes* review in attempt to invalidate the
27 '537 Patent, a patent related to the '200 Patent, and failed, and at least as far back as May 24, 2016,
28

1 when Plaintiffs filed suit on the '537 Patent in *Illumina, Inc. et al. v. Qiagen N.V. et al.* (Civ. A. No.
2 16-cv-02788-WHA), of which CGI should have been aware, CGI continues to perform the acts of
3 infringement and threatens to perform the acts of infringement identified in this Complaint. In
4 performing the acts of infringement and threatening to perform the acts of infringement identified
5 in this Complaint, CGI has been willfully blind to its ongoing infringement.

6 185. CGI's infringement of the '200 Patent has injured Illumina in its business and
7 property rights. Illumina is entitled to recovery of monetary damages for such injuries pursuant to
8 35 U.S.C. § 284 in an amount to be determined at trial. Illumina deserves treble damages and the
9 reimbursement of its fees and costs as set forth in 35 U.S.C. §§ 284 and 285.

10 186. CGI's infringement of the '200 Patent has caused irreparable harm to Illumina and
11 will continue to cause such harm unless and until their infringing activities are enjoined by this
12 Court.

PRAYER FOR RELIEF

WHEREFORE, Illumina prays for relief as follows:

- A. Judgment that Defendants have infringed one or more claims of the '537 and '200 Patents;
- C. An order preliminarily and permanently enjoining Defendants and their officers, directors, agents, servants, affiliates, employees, divisions, branches, subsidiaries, parents, and all others acting in active concert therewith from further infringement of the '537 and '200 Patents;
- E. An award of damages pursuant to 35 U.S.C. § 284;
- F. A declaration that Defendants' infringement of the patents in-suit has been willful and deliberate, and an increase to the award of damages of three times the amount found or assessed by the Court, in accordance with 35 U.S.C. § 284;
- G. An order for an accounting of damages from Defendants' infringement;
- H. An award to Illumina of their costs and reasonable expenses to the fullest extent permitted by law;
- I. A declaration that this case is exceptional pursuant to 35 U.S.C. § 285, and an award of attorneys' fees and costs; and
- J. An award of such other and further relief as the Court may deem just and proper.

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DEMAND FOR JURY TRIAL

Pursuant to Federal Rule of Civil Procedure 38(b) and Civil Local Rule 3-6(a), Illumina hereby demands a trial by jury on all issues so triable.

1 Dated: June 27, 2019

Respectfully Submitted,

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4 WEIL, GOTSHAL & MANGES LLP
Edward R. Reines
5 Derek C. Walter
6
7

8 By: /s/ Edward R. Reines
9 Edward R. Reines
10 Attorneys for Plaintiffs
11 ILLUMINA, INC.,
ILLUMINA CAMBRIDGE LTD.
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